

# Undergraduate Studies Bulletin 2018–2020

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## Bulletin of Fairleigh Dickinson University

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**Fairleigh Dickinson University**  
1000 River Road  
Teaneck, New Jersey 07666-1914

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### Locations

**Florham Campus (Madison, NJ)**

**Metropolitan Campus (Teaneck, NJ)**

**Vancouver Campus (British Columbia, Canada)**

**Wroxton College (Wroxton, England)**

All fees, tuition and charges are subject to change at any time at the discretion of the Board of Trustees.

The University reserves the right to change, without prior notice, the contents of its Bulletins and to modify its academic calendar and programs of instruction; academic and disciplinary requirements, policies and procedures, rules and regulations; its tuition, fees and charges, and the terms of financial aid. Changes shall be effective upon publication or when the University otherwise determines, and any such change may apply to prospective students and to those who already are enrolled at the University.

The University reserves the right to deny admission and matriculation to any applicant who, in the judgment of the University, is not qualified, may not benefit from the University's educational programs or whose presence or conduct may impact negatively on its program(s). Students applying for admission to the University agree to abide by all the rules and regulations now or hereafter promulgated by the University. Any student failing to comply with such rules and regulations is subject to their application being rejected, offer of acceptance being rescinded, enrollment being canceled or other appropriate disciplinary actions. Submission of false information, in this application or otherwise, is deemed a violation of University rules and regulations.

Fairleigh Dickinson University is committed to providing equal opportunity to all qualified persons and does not discriminate on the basis of race, religion, color, creed, ancestry or national origin, handicap/disability, age, gender, sexual orientation, marital status, pregnancy status or veteran status with regard to recruitment, admission or matriculation.

### **The Student Right-to-Know and Campus Security Act**

The Student Right-to-Know and Campus Security Act was signed into law in 1990 and amended with the Higher Education Technical Amendment of 1991. The first disclosure date for graduation/completion rates required by the Student Right-to-Know and Campus Security Act was July 1, 1993. In compliance with this act, Fairleigh Dickinson University makes this information available to current and prospective students through the Office of Enrollment Management.

### Campus Postal Addresses & Contact Information

#### Florham Campus

285 Madison Avenue  
Madison, NJ 07940-1099  
Phone: 973-443-8500

#### Metropolitan Campus

1000 River Road, T-KB1-01  
Teaneck, NJ 07666-1914  
Phone: 201-692-2000

#### Graduate Admissions Office

1000 River Road, T-KB1-01  
Teaneck, NJ 07666-1914  
Phone: 201-692-2554  
Email: grad@fdu.edu  
Website: fdu.edu/grad

#### International Admissions Office

1000 River Road  
Teaneck, NJ 07666-1914  
Phone: 201-692-2205  
Email: global@fdu.edu  
Website: fdu.edu/global

#### Study Abroad Offices

*Metropolitan Campus*  
1000 River Road  
Dickinson Hall, Suite 2234  
Teaneck, NJ 07666  
Phone: 201-692-7218

#### *Florham Campus*

285 Madison Ave.  
Hennessy Hall  
Madison, NJ 07940  
Phone: 973-443-8086

#### University Website

www.fdu.edu

### Undergraduate Admissions & Financial Aid

#### Office Hours & Locations

#### Florham Campus\*

*Admissions*  
Rothman Building  
Phone: 973-443-8900

#### *Financial Aid*

Hennessy Hall, Courtyard  
Phone: 973-443-8700

#### Metropolitan Campus\*

*Admissions*  
Dickinson Hall, 3rd Floor  
Phone: 201-692-2553

#### *Financial Aid*

Kron Building  
Phone: 201-692-2363

*\* Office hours are Mondays–Fridays, 9 a.m. to 5 p.m. Extended office hours available during peak registrations periods. Call for schedules. For best service, students are advised to schedule appointments in advance.*

#### Interested in applying?

You can apply online at [fdu.edu/apply](http://fdu.edu/apply). To request a paper application, call 1-800-338-8803 or email [admissions@fdu.edu](mailto:admissions@fdu.edu).

Office of Admissions  
Fairleigh Dickinson University  
1000 River Road, H-DH3-10  
Teaneck, NJ 07666-1914  
Website: [fdu.edu/apply](http://fdu.edu/apply)



**FAIRLEIGH  
DICKINSON  
UNIVERSITY**

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### Anthony J. Petrocelli College of Continuing Studies, College at Florham (Madison, N.J.), Metropolitan Campus (Teaneck, N.J.), Vancouver Campus (British Columbia, Canada) and Wroxton College(Oxfordshire, England).....379

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### University College: Arts • Sciences • Professional Studies, Metropolitan Campus (Teaneck, N.J.) and Vancouver Campus (British Columbia, Canada)..... 419

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# Academic Calendar 2018–2020\*

## Fall Semester 2018

Registration/Academic	
Counseling and Advising	August 13–24
Classes Begin, 8 a.m. (Mon.)	August 27
Labor Day Holiday (Mon.)	September 3
Last Day for New Registrations and Final Drop/Add Changes (Mon.)	September 10
Midterm Progress Reporting Opens (Mon.)	October 1
Fall Recess (Mon.–Tue.)	October 15–16
Midterm Progress Reporting Closes (Tue.)	October 23
Last Day for Student Withdrawal from Classes (Fri.)	November 2
Priority Registration for Spring Semester 2019	November 5–20
Thanksgiving Recess Begins, 11 p.m. (Tue.)	November 20
Classes Resume, 8 a.m. (Mon.)	November 26
Last Day of Classes, Fall Semester (Mon.)	December 10
Reading/Snow Makeup Days (Tue.–Wed.)	December 11–12
Final Examinations (Thu.–Wed.)	December 13–19
Grades due no later than 5 p.m. on the third day after exam is administered.	
Semester Ends, 11 p.m. (Wed.)	December 19

## Winter Session 2019

Classes Begin, 8 a.m. (Wed.)	January 2
Classes End, 11 p.m. (Thu.)	January 17

## Spring Semester 2019

Registration/Academic	
Counseling and Advising	January 2–18
Martin Luther King Jr. Day Holiday (Mon.)	January 21
Classes Begin, 8 a.m. (Tue.)	January 22
Last Day for New Registrations and Final Drop/Add Changes (Mon.)	February 4
Midterm Progress Reporting Opens (Mon.)	February 25
Spring Recess	March 11–16
Online Registration for Summer 2019 Sessions Opens (Fri.)	March 15
Classes Resume, 8 a.m. (Mon.)	March 18
Midterm Progress Reporting Closes (Sat.)	March 23
Last Day for Student Withdrawal from Classes (Fri.)	April 5
Priority Registration for Fall Semester 2019	April 8–19
Last Day of Classes, Spring Semester (Mon.)	May 6
Reading/Snow Makeup Days (Tue.–Wed.)	May 7–8
Final Examinations (Thu.–Wed.)	May 9–15
Grades due no later than 5 p.m. on the third day after exam is administered.	

Semester Ends, 11 p.m. (Wed.)	May 15
University Commencement (Tue.)	May 21

## Summer Sessions 2019

<b>Summer Session I 2019</b>	
Classes Begin, 8 a.m. (Mon.)	May 20
Memorial Day Holiday (Mon.)	May 27
Memorial Day Holiday Makeup Day (Fri.)	May 31
Classes End, 11 p.m. (Sat.)	June 29
<b>Summer Session II 2019</b>	
Classes Begin, 8:00 a.m. (Mon.)	June 10
Independence Day Holiday (Thu.)	July 4
Independence Day Holiday Makeup Day (Fri.)	July 12
Classes End, 11 p.m. (Sat.)	July 20
<b>Summer Session III 2019</b>	
Classes Begin, 8 a.m. (Mon.)	July 1
Independence Day Holiday (Thu.)	July 4
Independence Day Holiday Makeup Day (Fri.)	July 12
Classes End, 11 p.m. (Sat.)	August 10

## Fall 2019

Registration/Academic	
Counseling and Advising	August 12–23
Classes Begin, 8 a.m. (Mon.)	August 26
Labor Day Holiday (Mon.)	September 2
Last Day for New Registrations and Final Drop/Add Changes (Mon.)	September 9
Midterm Progress Reporting Opens (Mon.)	September 30
Fall Recess (Mon.–Tue.)	October 14–15
Midterm Progress Reporting Closes (Tue.)	October 22
Last Day for Student Withdrawal from Classes (Fri.)	November 1
Priority Registration for Spring Semester 2020	November 4–19
Thanksgiving Recess Begins, 11 p.m. (Tue.)	November 26
Classes Resume, 8 a.m. (Mon.)	December 2
Last Day of Classes, Fall Semester (Mon.)	December 9
Reading/Snow Makeup Days (Tue.–Wed.)	December 10–11
Final Examinations (Thu.–Wed.)	December 12–18
Grades due no later than 5 p.m. on the third day after exam is administered.	
Semester Ends, 11 p.m. (Wed.)	December 18

## Winter Session 2020

Classes Begin, 8 a.m. (Thu.)	January 2
Classes End, 11 p.m. (Fri.)	January 17

## Spring Semester 2020

Registration/Academic	
Counseling and Advising	January 2–17
Martin Luther King Jr. Day Holiday (Mon.)	January 20
Classes Begin, 8 a.m. (Tue.)	January 21
Last Day for New Registrations and Final Drop/Add Changes (Mon.)	February 3
Midterm Progress Reporting Opens (Mon.)	February 24
Spring Recess	March 9–14
Online Registration for Summer 2020 Sessions Opens (Sun.)	March 15
Classes Resume, 8 a.m. (Mon.)	March 16
Midterm Progress Reporting Closes (Sat.)	March 21
Last Day for Student Withdrawal from Classes (Fri.)	April 3
Priority Registration for Fall Semester 2020	April 6–17
Last Day of Classes, Spring Semester (Mon.)	May 4
Reading/Snow Makeup Days (Tue.–Wed.)	May 5–6
Final Examinations (Thu.–Wed.)	May 7–13
Grades due no later than 5 p.m. on the third day after exam is administered.	
Semester Ends, 11 p.m. (Wed.)	May 13
University Commencement	TBD

## Summer Sessions 2020

<b>Summer Session I 2020</b>	
Classes Begin, 8 a.m. (Mon.)	May 18
Memorial Day Holiday (Mon.)	May 25
Memorial Day Holiday Makeup Day (Fri.)	May 29
Classes End, 11 p.m. (Sat.)	June 27
<b>Summer Session II 2020</b>	
Classes Begin, 8 a.m. (Mon.)	June 8
Independence Day Holiday (Sat.)	July 4
Independence Day Holiday Makeup Day (Fri.)	July 10
Classes End, 11 p.m. (Sat.)	July 18
<b>Summer Session III 2020</b>	
Classes Begin, 8 a.m. (Mon.)	June 29
Independence Day Holiday (Sat.)	July 4
Independence Day Holiday Makeup Day (Fri.)	July 10
Classes End, 11 p.m. (Sat.)	August 8

## Major Religious Holy Days

The University respects the observance of major religious holy days by members of the campus community. Officers of administration and of instruction responsible for scheduling required academic activities or essential services are expected to avoid conflict with such holy days as much as possible.

\*Weekend College, off-campus and some Anthony J. Petrocelli College of Continuing Studies courses and certain special programs may follow a different schedule.

# Nontraditional Academic Calendar 2018–2019\*

Online classes and classes that do not meet on the Metropolitan Campus or Florham Campus may not follow the holiday and academic break periods shown below. The instructor will clarify the class meeting schedule for each course, consistent with the FDU Credit Hour Definition.

## Fall 2018

Registration/Academic	September
Counseling and Advising	17–21
Classes Begin, 8 a.m. (Sun.)	September 23
Last Day for New Registrations and Final Drop/Add Changes (Wed.)	October 3
Fall Recess (Mon.–Tue.)	October 15–16
Midterm Progress Reporting Opens (Mon.)	October 22
Priority Registration for Spring Semester 2019	November 5–20
Midterm Progress Reporting Closes (Fri.)	November 9
Last Day for Student Withdrawal from Classes (Fri.)	November 16
Thanksgiving Recess Begins, 11 p.m. (Tue.)	November 20
Classes Resume, 8 a.m. (Mon.)	November 26
Last Day of Classes, Fall Semester Ends 11 p.m. (Sat.)	December 15

Final examinations for all face-to-face classes are held during the last class meeting. Grades for face-to-face classes are due no later than 5 p.m. on the third day after exam is administered. Grades for online classes are due no later than third day after semester ends.

## Spring 2019

Registration/Academic	January 2–4,
Counseling and Advising	January 7–11
Classes Begin, 8 a.m. (Sun.)	January 13
Martin Luther King Jr. Day Holiday (Mon.)	January 21
Last Day for New Registrations and Final Drop/Add Changes (Wed.)	January 23
Martin Luther King Jr. Day Holiday Makeup Day (Fri.)	January 25
Midterm Progress Reporting Opens (Mon.)	February 18
Midterm Progress Reporting Closes (Fri.)	March 8
Spring Recess	March 11–16
Online Registration for Summer 2019 Sessions Opens (Fri.)	March 15
Classes Resume, 8 a.m. (Mon.)	March 18
Last Day for Student Withdrawal from Classes (Fri.)	March 22
Last Day of Classes, Spring Semester Ends 11 p.m. (Sat.)	April 6

Final examinations for all face-to-face classes are held during the last class meeting. Grades for face-to-face classes are due no later than 5 p.m. on the third day after exam is administered. Grades for online classes are due no later than third day after semester ends.

## Summer I 2019

Registration/Academic	
Counseling and Advising	April 8–12
Classes Begin, 8 a.m. (Sun.)	April 14
Priority Registration for Fall Semester 2019	April 15–26
Last Day for New Registrations and Final Drop/Add Changes (Wed.)	April 24
University Commencement (Tue.)	May 21
Memorial Day Holiday (Mon.)	May 27
Memorial Day Holiday Makeup Day (Fri.)	May 31
Last Day for Student Withdrawal from Classes (Fri.)	June 14
Independence Day Holiday (Thu.)	July 4
Independence Day Holiday Makeup Day (Fri.)	July 5
Last Day of Classes, Summer I Ends 11 p.m. (Sat.)	August 10

For fall 2019 through summer 2020 see Academic Calendar page 4.

## The University

### Mission Statement

Fairleigh Dickinson University is a center of academic excellence dedicated to the preparation of world citizens through global education. The University strives to provide students with the multidisciplinary, intercultural and ethical understandings necessary to participate, lead and prosper in the global marketplace of ideas, commerce and culture.

### University Vision

Fairleigh Dickinson University strives to be a leading institution of higher education dedicated to empowering its faculty and staff to provide innovative programming, respond with integrity and agility to emerging challenges, cultivate student success and prepare graduates to fulfill their potential, transform their lives and become competent and responsible citizens of the world.

### Value Statement

As a community of learners, Fairleigh Dickinson University is committed to an educational environment that fosters growth and development, social justice, understanding among people and enrichment for all who study and work at the University.

### FDU Cares

#### Community

We have an educational community that is diverse and demonstrates creativity, enthusiasm and responsibility.

#### Advantage

We strive to provide the values of education and the opportunity for personal growth and enrichment.

#### Respect

We care about one another and ourselves and are committed to treating all people with civility and consideration.

#### Ethics

We believe everyone's rights and freedoms should be respected and that we must act with integrity and accountability.

#### Support

We endeavor to provide an environment for success based on cooperation, communication and caring.

### General Information

Fairleigh Dickinson University, New Jersey's largest private university, is a nonsectarian, coeducational institution offering programs on the undergraduate, graduate and professional levels.

Founded as a small junior college in 1942, the University now maintains two major campuses in northern New Jersey suburbs — at Teaneck (Bergen County) and Madison (Morris County) — and campuses in England and Canada.

The Metropolitan Campus, Teaneck, features a university atmosphere with a diverse graduate and undergraduate student population from the United States and abroad. It offers a wide range of programs and degrees from the associate to the Ph.D. Its resources for undergraduates include a major graduate center, easy access to New York City and a wide range of professional and accelerated programs.

Its University College: Arts • Sciences • Professional Studies includes the depth and breadth of the liberal arts faculty, the focus and strength of the engineering programs, the variety and importance of the health profession majors, the quality of the clinical psychology program and the presence of the largest number of professional accredited programs at the University. The Metropolitan Campus also serves as the home of the ELS Language Center/Berlitz on Campus program.

Recognizing that the student profile on most U.S. campuses is changing dramatically, the University's Anthony J. Petrocelli College of Continuing Studies provides a unified approach and enhanced focus on the adult learner; addresses the special educational needs of nontraditional students and continues to position the University as a leader in providing learning opportunities in a strong academic foundation for students of all ages. The College also provides a point of entry and a supportive educational environment for those full-time students who do not meet regular admission requirements.

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business. The college offers undergraduate and graduate programs in business education at both the University's Florham Campus and Metropolitan Campus New

Jersey locations and at the Vancouver Campus, British Columbia, Canada.

Fairleigh Dickinson's Florham Campus, Madison, offers a classic college experience where undergraduates are at the heart of the learning experience. With its small college setting, the Florham Campus emphasizes residential living, hands-on learning, graduate and professional school preparation and customized educational offerings, all framed by a global perspective.

The Florham Campus offers a broad range of strong undergraduate programs in the Maxwell Becton College of Arts and Sciences, the Silberman College of Business and the Anthony J. Petrocelli College of Continuing Studies and continuing-education programs and creates an academically challenging learning environment with an enhanced residential experience. In addition, University College: Arts • Sciences • Professional Studies offers both graduate and undergraduate programs in the QUEST and M.A.T. programs at the Florham Campus.

### Brief History

1942 — A two-year college is founded in Rutherford by Dr. Peter Sammartino and his wife, Sylvia (Sally). One hundred and fifty-three students are enrolled.

1948 — In response to the need for higher education in northern New Jersey, Fairleigh Dickinson College expands its programs into a four-year curriculum.

1948 — First accreditation is achieved from the regional accrediting agency, the Middle States Association of Colleges and Schools.\*

1954 — The first graduate-level program is offered — a master's degree in business administration — still one of the University's most popular programs.

1954 — A second campus is acquired: formerly Bergen Junior College, in Teaneck, New Jersey.

1956 — By action of the New Jersey State Board of Education, Fairleigh Dickinson College becomes Fairleigh Dickinson University.

1956 — The College of Dental Medicine admits its first students.

\*3624 Market Street, Philadelphia, Pennsylvania  
19104-2680; telephone: (267) 284-5000.

1957 — *The Literary Review* is founded as an international journal of contemporary writing.

1958 — A third campus is created in Madison, New Jersey, on the former Florence Vanderbilt-Twombly estate.

1964 — Edward Williams College, a two-year college offering associate degrees, with highly personalized instruction and guidance, begins classes on the Hackensack side of the Teaneck location.

1965 — The University opens its first overseas campus, Wroxton College, in England.

1967 — The founding president, Dr. Peter Sammartino, retires after 25 years of service and is appointed chancellor and president emeritus. Dr. J. Osborn Fuller is appointed president.

1967 — The FDU Press is established and will print more than 1,500 scholarly books.

1970 — The innovative and popular Saturday College of Edward Williams College opens, offering the opportunity to earn an associate degree by taking courses on Friday evenings and Saturdays.

1970 — The College of Dental Medicine moves to a new multimillion-dollar facility on the Hackensack side of the Teaneck Campus.

1972 — Fairleigh Dickinson University dedicates its second overseas campus, the West Indies Laboratory at St. Croix, U.S. Virgin Islands.

1974 — Dr. Jerome M. Pollack becomes the third president of the University.

1982 — The first students are admitted to a program for the Ph.D. in clinical psychology.

1983 — Walter T. Savage is appointed acting president.

1984 — Dr. Robert H. Donaldson becomes the fourth president of the University.

1987 — The George and Phyllis Rothman Center, the University's major, state-of-the-art athletic and recreation facility, opens in Hackensack.

1989 — With the creation of the Rothman Institute of Innovation and Entrepreneurship at Madison, Fairleigh Dickinson becomes the first university in the nation to build a facility dedicated to entrepreneurial education.

1990 — The College of Dental Medicine graduates its last class. Dr. Francis J. Mertz is appointed to an interim term as president of the University. Because of significant damage to the West Indies Laboratory by Hurricane Hugo, the facility is closed.

1992 — As part of the implementation of a strategic planning process, a new University College: Arts • Sciences • Professional Studies is created at Teaneck, and Madison develops honors track programs in all disciplines. Dr. Francis J. Mertz is appointed president of the University.

1993 — FDU's Board of Trustees approves a facilities master plan that allows for the implementation of three major construction projects by fall 1995. The board also votes that the University merge its operations on the Rutherford Campus with those of Teaneck and Madison beginning with the 1994–95 academic year.

1994 — Dickinson Hall reopens at the Metropolitan Campus.

1995 — The Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center opens at the Florham Campus.

1998 — The Martin F. Stadler, Patrick J. Zenner, Hoffmann-La Roche Inc. Academic Building opens at Madison. New College of General and Continuing Studies is formed to address the special educational needs of nontraditional students, including adult learners.

1999 — Dr. J. Michael Adams is appointed president. The Park Avenue Residence Hall opens at Madison.

2000 — The University modifies its mission, dedicating itself to "the preparation of world citizens through global education."

2001 — The University's survey research group, PublicMind™ (now Fairleigh Dickinson University Poll), makes the first of hundreds of press releases based on measurements of public opinion.

2002 — Missions of the New Jersey campuses are indicated by new identities: Florham Campus (Madison) and the Metropolitan Campus (Teaneck). FDU creates its United Nations Pathways Lecture Series and earns designation as a nongovernmental organization (NGO) associated with the U.N. Department of Public Information.

2003 — The residence halls, Northpointe and Rutherford Hall, open at the Metropolitan Campus and Florham Campus, respectively.

2004 — Chaîne House opens at the Florham Campus. The International School of Hospitality and Tourism Management, and the national headquarters of Confrérie de las Chaîne des Rôtisseurs, the world's premier gourmet society, are located in the building.

2005 — New College of General and Continuing Studies is renamed Anthony J. Petrocilli College of Continuing Studies.

2006 — Lee Gildart and Oswald Haase School of Computer Sciences and Engineering is named to honor science mentors of alumnus, spacefarer and entrepreneur Gregory Olsen, whose gift is the largest in FDU's history.

2007 — The University opens its second overseas campus, the Vancouver Campus, in British Columbia, Canada.

2009 — Fairleigh Dickinson is approved for "Special Consultative Status" as a nongovernmental organization with the U.N. Economic and Social Council (ECOSOC). FDU is the first university in the world to earn this rank. FDU grants its first doctor of nursing practice degree.

2010 — The Vancouver Campus graduates its first class. In recognition of the generosity of John Giovatto and in memory of his brother, Frank, the Metropolitan Campus dedicates the Frank Giovatto Library.

2011 — The University's largest capital campaign, FDU NOW, bests its target of \$50 million by almost \$9 million.

2012 — Sheldon Drucker is appointed to an interim term as president of the University. The School of Pharmacy and Health Sciences opens. It is New Jersey's first pharmacy school associated with a private university and only the second in the state. The John and Joan Monninger Center for Learning and Research opens at the Florham Campus.

2013 — Sheldon Drucker is appointed president of the University.

2014 — The Board of Trustees approves a five-year strategic plan that includes initiatives to improve the value and affordability of an FDU degree, expand key programs and focus on new areas of growth and innovation.

2015 — FDU dedicates the Daniel and Martina Lewis Center for Healthcare Innovation and Technology at the School of Pharmacy and Health Sciences.

2016 — University Provost and Senior Vice President Christopher A. Capuano became the University's eighth president on July 1, 2016.

2017 — Fairleigh Dickinson University celebrates its 75th Anniversary. The School of Public and Global Affairs is formed.

2018 — The new School of the Arts is launched.

## Impact

Fairleigh Dickinson University has had a widespread impact upon northern New Jersey. Approximately 70 percent of its more than 125,000 alumni have remained in

# The University

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New Jersey, and many work in the area's industries. Companies such as Alcatel-Lucent, AT&T, BD, Bestfoods, Deloitte, Erleson, Honeywell International Inc., IBM, Johnson & Johnson, Merck, Novartis, Pfizer Inc., Prudential and Wyeth employ large numbers of Fairleigh Dickinson alumni.

The University sponsors a wide variety of educational opportunities, many in cooperation with local school districts, local businesses and even military installations, bringing University expertise to a large number of citizens.

## Campuses

The University's two major campuses in northern New Jersey are located in Teaneck (Bergen County) and Madison (Morris County). Maps of the campuses are included in the back of this *Undergraduate Studies Bulletin*.

### Florham Campus

Fairleigh Dickinson's Florham Campus, located on a former Vanderbilt-Twombly estate in suburban Madison (Morris County), offers undergraduates a classical experience for the contemporary world in a small college setting.

With the majority of its undergraduate students living on campus, the Florham Campus focuses on providing outstanding on-campus and residential living and learning opportunities. Students have access to a wide range of hands-on learning experiences (such as internships, student/faculty research and study abroad), strong graduate and professional school preparation and customized educational options (from double majors to specializations within minors) — all framed by a global perspective.

The Florham Campus, on the outskirts of Morristown on Route 124, near the intersection of Interstate 287, is 35 miles from New York City. It is convenient to the Convent Station and Madison NJ Transit railroad stations, the bus line and Morristown airport.

This campus, a beautifully landscaped park of 166 acres, was known as "Florham" when it was created as an estate for Florence Vanderbilt Twombly and Hamilton Twombly by Stanford White of McKim, Mead and White, with grounds designed by Frederick Law Olmsted. Its Georgian-style buildings have been adapted to the educational needs of the University.

The 100-room Hennessy Hall (formerly the Vanderbilt mansion) accommodates classrooms, offices and Lenfell Hall. The Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center has an indoor swimming pool, a gymnasium, a physical fitness room and racquetball courts.

The Martin F. Stadler, Patrick J. Zenner, Hoffmann-La Roche Inc. Academic Building houses 20 classrooms, student lounges and a dining facility for commuter and part-time students as well as the traditional undergraduate population.

The Dreyfuss Building contains a 420-seat proscenium theater, where four main stage productions are presented each year by theater arts majors.

The Park Avenue Residence Hall includes 312 beds in four-person suites with each containing a living area, a kitchen and two bedrooms with baths.

Rutherford Hall, a residence hall named after the University's first campus, opened in September 2003. This four-story, L-shaped, red-brick building, designed to complement the Georgian-style design of other campus buildings, houses 300 upperclass students. The double-occupancy rooms with a bathroom are climate controlled and have connections for cable television and University computer network, including wireless internet access. All floors have a common lounge, and there is a central kitchen area in the building for student use.

The campus also includes the John and Joan Monninger Center for Learning and Research, Rothman Institute of Innovation and Entrepreneurship, Twombly Hall student resident complex, Dormitory Village and the Frank Santoloci Student Center, with facilities for dining, recreation, student government, a student-operated pub, a bookstore and student activities.

### Metropolitan Campus

The Metropolitan Campus is located in the dynamic New York/New Jersey corridor. It features a university atmosphere with an international perspective attracting nearly equal numbers of graduate and undergraduate students from throughout the United States and around the world.

Undergraduate studies emphasize practical, career-oriented and hands-on experience (such as cooperative education and internships). Undergraduates have access to the resources of a major graduate cen-

ter, and nearby New York City is an integral part of the overall learning experience. Accelerated bachelor's/master's options are among its many professional programs.

Fairleigh Dickinson's Metropolitan Campus is directly accessible from Route 4, six miles from the George Washington Bridge and stretches along the east and west banks of the Hackensack River. It has 55 buildings on 88 acres.

Robison Hall, Frank Giovatto Library, Alumni Hall and the Jos. L. Muscarelle Center for Building Construction Studies, all set on the river's east edge, are designed in a contemporary style. Other buildings done in this manner are Williams Hall, the Student Union Building and residence hall complex and University Hall, a classroom, laboratory and computer facility. The Rothman Center, the University's major athletic and recreation facility capable of seating 5,000 to 6,000 people; Edward Williams Hall, a major classroom facility; and Dickinson Hall, the campus's 170,000-square-foot academic facility, are set on the west side of the Hackensack River.

Other major facilities include a Fitness Center (with a student lounge) and the campus's newest residence hall, Northpointe (2003). WFDU-FM, the University's broadcasting station, is located near the University Court residence halls.

The Metropolitan Campus also houses the Anthony J. Petrocelli College of Continuing Studies offering degree programs and noncredit courses and programs for nontraditional students.

### Wroxton College

Wroxton College is the British campus of the University, situated in the ancestral home of Lord North at Wroxton Abbey in Oxfordshire. It is centrally located in England, lying near Banbury, between Oxford and Stratford-upon-Avon. The latter is, of course, the birthplace of William Shakespeare and a regular destination of Wroxton students attending productions of the Royal Shakespeare Company.

London is just 75 miles away from the campus, and while there are several scheduled College excursions to the city, there also is regular train service from Banbury.

Originally constructed as an Augustinian priory in 1217, Wroxton Abbey has accommodated several British monarchs and American statespeople such as Theodore Roosevelt. It now houses the College's classrooms and seminar rooms, the library and the fully modernized student-lodging facilities.



Wroxton College is a unique experience both culturally and academically for students seeking to extend their horizons. Students have come to Wroxton from more than 250 American colleges and universities to participate in an academic program offered by a British faculty and visiting British scholars.

In the fall and spring semesters, undergraduate courses are offered in economics, English theater and drama, fine arts, international business, literature, psychology and social sciences. There is also ample opportunity for independent study. The academic offerings are supplemented by an extensive program of tours to various historic sites, artistic and cultural centers, and places of political and commercial significance. The Master of Science in hospitality management studies will also be offered at Wroxton, see page 240 in the *Graduate Studies Bulletin*.

Each summer, Wroxton College offers courses for both graduate and undergraduate credit.

Admissions inquiries should be addressed to the Wroxton College/Study Abroad Office, 285 Madison Avenue, Madison, New Jersey 07940, (973) 443-8086 or 1 (800) 338-8803.

## Vancouver Campus

As a leading innovator in global education, Fairleigh Dickinson University consistently seeks new ways to offer its unique learning opportunities to students worldwide. The University's newest campus and second international location is situated in Vancouver, British Columbia, Canada. Students at the Vancouver Campus have the unique opportunity to earn undergraduate and graduate degrees from an American university while studying in Canada.

The campus officially opened in fall 2007 in a newly renovated, state-of-the-art facility in the city's historic and cosmopolitan Yaletown section. Located in western Canada near the U.S. border, Vancouver is one of the world's most scenic and multicultural cities. Consistently rated one of the world's most livable cities, Vancouver is surrounded by stunning natural beauty, including mountains, the Pacific Ocean, a rainforest, parks and beaches. Warmed by Pacific Ocean currents and protected by a range of mountains, Vancouver enjoys mild temperatures year-round.

The Vancouver Campus serves primarily international students from around the world. Three undergraduate degrees are

currently available on campus: the B.S. in business administration with a concentration in international business (with adviser approval) or a concentration in information technology; the B.S. in information technology with a minor in business administration and concentrations in network and system administration and web-development technology; and the B.A. in individualized studies with specializations in applied technology, applied technology and business, applied technology and communications, applied technology and international relations, business, business and communications, business and international relations, communications, communications and international relations, disaster and emergency management, health and human services, homeland security studies, hospitality and tourism management, international relations, leadership administration, security and terrorism studies and sports administration studies. All programs use the same curricula offered for these degrees at FDU's New Jersey campuses, and all offer U.S. degrees approved by the state of New Jersey. Classes follow a trimester calendar that enables students to complete their degrees in less than three years by attending classes year-round if they wish.

Two graduate programs are offered on the Vancouver Campus: a Master of Administrative Science with specializations in computer security and forensic administration, emergency management administration, global health and human services administration, global leadership and administration, global technology administration, human resources administration; and the Master of Science in hospitality management studies.

In addition to its degree programs, the Vancouver Campus' Pre-University Program is available to students who need additional support in developing their English-language skills before starting their degree studies.

Fairleigh Dickinson University received approval on May 8, 2006, from the British Columbia Ministry of Advanced Education to offer degree programs and operate as a university in British Columbia. FDU was the first non-Canadian institution to gain approval under the new, more stringent standards adopted by British Columbia in 2003.

Admissions inquiries should be directed to the Office of Admissions, Vancouver Campus at (604) 682-8112 or 1-877-338-

8002 (in North America) or by email at [vancouver@fdu.edu](mailto:vancouver@fdu.edu).

## Accreditation

Fairleigh Dickinson University is accredited by the Middle States Commission on Higher Education\* and licensed by the State of New Jersey, Office of the Secretary of Higher Education.

In addition to the accreditation held by all programs for academic purposes, specialized curricula have applied for and been granted approval by the following recognized professional agencies: accountancy — New Jersey State Board of Public Accountants; business, Silberman College of Business — AACSB International - The Association to Advance Collegiate Schools of Business; chemistry — American Chemical Society (this accreditation applies only to the Bachelor of Science program offered by Maxwell Becton College of Arts and Sciences at the Florham Campus, Madison, New Jersey); civil engineering technology — Engineering Technology Accreditation Commission of ABET\*\* (ETAC/ABET); clinical mental health counseling — Council for Accreditation of Counseling and Related Educational Programs (CACREP); clinical psychology (Doctor of Philosophy Program) — American Psychological Association; computer science — Computing Accreditation Commission of ABET\*\* (CAC/ABET) (this accreditation applies only to the Bachelor of Science in computer science program offered by University College: Arts • Sciences • Professional Studies at the Metropolitan Campus, Teaneck, New Jersey); construction engineering technology — Engineering Technology Accreditation Commission of ABET\*\* (ETAC/ABET); education — initial accreditation with Council for the Accreditation of Educator Preparation (CAEP) and New Jersey State Department of Education; electrical engineering — Engineering Accreditation Commission of ABET\*\* (EAC/ABET); electrical engineering technology — Engineering Technology Accreditation Commission of ABET\*\* (ETAC/ABET); hotel and restaurant management — Accreditation Commission for Programs in Hospitality Administration (ACPHA) (this accreditation applies only to the Bachelor of Science program); nursing — New Jersey State Board of Nursing and the Commission on Colle-

\*3624 Market Street, Philadelphia, Pennsylvania 19104-2680; telephone: (267) 284-5000.

\*\*ABET, <http://www.abet.org>

giate Nursing Education (CCNE); mechanical engineering technology — Engineering Technology Accreditation Commission of ABET\* (ETAC/ABET); pharmacy — Accreditation Council for Pharmacy Education\*\*; physical therapist assistant — Committee on Accreditation in Physical Therapy Education; radiography — Joint Review Committee on Education in Radiologic Technology; school psychology — National Association of School Psychologists (NASP); Silberman College of Business — AACSB International — The Association to Advance Collegiate Schools of Business; inclusion on approved lists of the American Medical Association and the American Dental Association (Medicine, Dentistry) by virtue of the accreditation by the Middle States Commission on Higher Education.

## Graduate Study

The University offers ample opportunity for graduate study. Master's degrees are offered in 50 areas. The University also has programs leading to the Doctor of Philosophy degree in clinical psychology, a Doctor of Psychology degree in school psychology, a Doctor of Nursing Practice degree and a Doctor of Pharmacy degree.

Several five-year programs result in a B.S. in accounting/M.B.A. in business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; a B.A./M.A. in animation; a B.S./M.S. in accounting; a B.S. in accounting/M.S. in supply chain management; a B.S. in accounting/M.S. in taxation; a B.S./M.S. in biology; a B.S. in biochemistry/M.S. in applied clinical nutrition through the School of Applied Clinical Nutrition, New York Chiropractic College; a B.S. in biochemistry/M.S. in chemistry with a concentration in pharmaceutical chemistry; a B.S. in biochemistry/M.S. in cosmetic science; a B.S. in biology/M.S. in acupuncture and oriental medicine through the Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College; a B.S. in business administration/M.B.A. in accounting or entrepreneurship or finance or information systems or international business or management or marketing or

pharmaceutical management; a B.S. in business administration/M.S. in accounting; a B.S. in business administration/M.S. in supply chain management; a B.S. in business administration/M.S. in taxation; a B.S. in chemistry/M.S. in chemistry with a concentration in pharmaceutical chemistry; a B.S. in chemistry/M.S. in cosmetic science; a B.A. in communication studies/M.A. in communication; a B.A./M.A. in criminal justice; a B.A. in history/M.P.A.; a B.A. in sports administration/Master of Sports Administration; B.S./M.S. in computer science; B.S. in computer science/M.S. in management information systems; a B.S.E.E./M.S. in computer engineering; B.S.E.E./M.S. in electrical engineering; a B.S. in entrepreneurship/M.B.A. in accounting or business administration or finance or information systems or international business or management or marketing or pharmaceutical management; a B.S. in entrepreneurship/M.S. in accounting; a B.S. in entrepreneurship/M.S. in supply chain management; a B.S. in entrepreneurship/M.S. in taxation; a B.S. in finance/M.B.A. in accounting or business administration or entrepreneurship or information systems or international business or management or marketing or pharmaceutical management; a B.S. in finance/M.S. in accounting; a B.S. in finance/M.S. in supply chain management; a B.S. in finance/M.S. in taxation; a B.S. in hotel and restaurant management/M.S. in hospitality management studies; a B.S. in information technology/M.S. in computer science; a B.S. in management/M.B.A. in business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; a B.S. in management/M.S. in accounting; a B.S. in management/M.S. in supply chain management; a B.S. in management/M.S. in taxation; a B.S. in marketing/M.B.A. in accounting, business administration or entrepreneurship or finance or information systems or international business or management or pharmaceutical management; a B.S. in marketing/M.S. in accounting; a B.S. in marketing/M.S. in supply chain management; a B.S. in marketing/M.S. in taxation; a B.A. in political science/M.A. in criminal justice; a B.A./M.A. in political science; a B.A. in political science/M.P.A.; a B.A. in psychology/M.A. in industrial/organizational psychology, general/theoretical psychology or forensic psychology; a B.A. in psychology/M.S.W. through New

York University; a B.A./M.P.A.; and a B.A. or B.S./M.A.T.

There is also a six-year program in B.A./M.F.A. in animation.

Seven-year programs lead to a B.S. in biochemistry, biology or chemistry and a Pharm.D. degree through Fairleigh Dickinson University's School of Pharmacy; a B.S. in biology and a D.M.D. degree through the Rutgers School of Dental Medicine; a B.S. in biology and an M.D. degree with Ross University School of Medicine in Commonwealth of Dominica; a B.S. in biology and an M.D. degree with Universidad Autónoma de Guadalajara in Mexico; a B.S. in biology, biochemistry or chemistry and a D.O. degree through Lake Erie College of Osteopathic Medicine; a B.S. in biology and a D.P.M. degree with New York College of Podiatric Medicine; and a B.S. in biology and a D.V.M. degree (veterinary medicine) through Ross University School of Veterinary Medicine, St. Kitts.

A six-year, four-month program leads to a B.S. and a Doctor of Chiropractic degree with participating Council on Chiropractic Education (CCE)-accredited colleges of chiropractic. A six-year program leads to a B.S. in biology and a Doctor of Physical Therapy (D.P.T.) through the Rutgers School of Health Professions. (A complete listing of accelerated programs can be found on pages 206–271.)

A limited number of undergraduate seniors with above-average records may carry one or two graduate courses in their field of specialization. Permission for undergraduates to register for graduate courses must be obtained from the student's department chairperson/school director and College dean. Appropriate forms are available in the Office of Enrollment Services.

## Official University Photography

Fairleigh Dickinson University reserves the right to photograph members of the University community, including, but not limited to, its students and faculty, in situations appropriate to the image of an academic institution, and to publish likenesses in Fairleigh Dickinson University publications, videos or other recruitment or promotional materials. However, the University will, to the extent feasible, honor requests of constituents who do not wish their images photographed or published.

\*ABET, <http://www.abet.org>

\*\*Accreditation Council for Pharmacy Education, 135 South LaSalle Street, Suite 4100, Chicago, IL 60603; phone: (312) 664-3575; fax (866) 228-2631; website: [www.acpe-accredit.org](http://www.acpe-accredit.org)

# Admissions; Financial Aid and Scholarships; Registration, Tuition and Billing Information

## Admissions

### General Admission Policy

Fairleigh Dickinson University considers students for admission on the basis of their ability to successfully undertake both a liberal arts and professional curriculum.

The University reserves the right to deny admission to any applicant who, in the judgment of the Admissions Committee, do not meet minimum admission requirements or whose presence or conduct may impact negatively on its program(s). The University also reserves the right to deny admission to any student who engages in conduct deemed by the University, in its sole discretion, as interfering with the learning experience or safety of any person in the University community.

Inquiries regarding programs and admission should be directed to Admissions Office: Florham Campus, (973) 443-8900 or Metropolitan Campus, (201) 692-7308.

### Matriculated Students

A matriculated student is one who has been accepted as a candidate for the degree of Bachelor of Arts, Bachelor of Science, Associate in Arts or Associate in Science. These include first-time, full-time freshman students; transfer students; adult students; part-time evening and weekend students; and international students.

A full-time student is one who carries at least 12 credits each semester. Only full-time matriculating students may reside on campus. A part-time student may enroll for a maximum of 11 credits each semester.

### Undergraduate Freshman Admission

To be considered for freshman admission, students must submit a completed Application for Undergraduate Admission, a \$50.00 nonrefundable application fee and an official high school transcript. Standardized test scores, either Scholastic Aptitude Test (SAT) or American College Testing (ACT), are required in some instances (contact the Admissions Office for more information).

While recommendation letters and a personal essay are not required as part of the admission process, the University reserves the right to request either before making a final decision on an applicant.

### When to File an Application

Applications for admission may be submitted for the fall semester starting in August, and the spring semester starting in September. Applications are processed on a rolling basis until the class is filled. Fairleigh Dickinson University also offers an early decision option with an application filing deadline of November 15.

### Advanced Placement (AP) Program Policy

Consideration for advanced placement (AP) credit at Fairleigh Dickinson University will be given to students who have taken college-level courses in a secondary school or have earned the required score on the appropriate College Board Advanced Placement (AP) Examination.

Please note that each academic department or school at the University has established standards related to scores accepted per the College Board Advanced Placement (AP) Examination and minimum required scores may vary.

An official score from the College Board Advanced Placement (AP) Examination must be sent to the Office of Admissions for consideration.

### Admission Requirements

1. A candidate must have graduated from an accredited secondary school or have received his or her General Educational Development (GED) Certificate.
2. FDU recommends that a student complete a minimum of 16 academic (college preparatory) units in high school with a distribution as follows:

- English: 4
- College Preparatory Mathematics: 3
- History: 2
- Laboratory Sciences: 2 (required), 3 (recommended)
- Foreign Language: 1 (required), 2 (recommended)
- Electives: 4 (3 should be academic)

In addition to the above requirements, majors in:

*Science or Engineering* — Applicants for majors in biochemistry, chemistry, engineering, mathematics, computer science or science should have 3 units of college preparatory mathematics (including trigonometry) and 2 units of laboratory science. Applicants for majors in engineering technology should have 3 units of col-

lege preparatory mathematics (including algebra and plane geometry) and 2 units of science.

3. Standardized test scores are required in some instances. Contact the Office of Admissions for more information.

### Transfer Students and Advanced Standing

These students have graduated from an accredited secondary school and have completed 24 or more college-credit hours at an accredited post-secondary institution other than Fairleigh Dickinson University.

While a personal interview is not required, the University reserves the right to request an interview before making a final decision on an applicant. A candidate for admission is encouraged to make a personal appointment with an admissions counselor in order to discuss admission eligibility and education plans.

### When to File an Application

1. Applications for admission may be submitted for the fall or spring semesters.
2. Applications for admission are processed on a rolling basis; therefore, students are encouraged to apply early to allow ample time to complete the application process.

### Admission Requirements

Transfer applicants must submit official transcripts from all colleges and universities attended. Students who have attended less than 24 credits must submit a high school transcript.

An evaluation of previous academic work will be made in accordance with the following policy:

**a. Students with an Associate in Arts (A.A.) or an Associate in Science (A.S.) Degree** — All credits earned at a college from which a student received an associate degree will be evaluated for transfer to Fairleigh Dickinson University degree programs. Course work in which grades of A through C have been earned will be considered for transfer. Grades of C- or D may only be eligible for transfer to nonmajor courses.

A maximum of 64 credits will be transferred from two-year associate degree programs, and a maximum of 90 credits will be transferred from four-year baccalaureate degree programs. No more than 90

# Admissions

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credits may be transferred in total from any previous undergraduate experience.

Students with credits earned beyond their associate degree in a four-year baccalaureate degree program may have courses with grades of A through C evaluated for transfer. Grades below C (C- through F) will not be accepted for transfer.

**b. Students without an Associate in Arts (A.A.) or an Associate in Science (A.S.) Degree** — Courses from regionally accredited institutions will be evaluated for transfer if they are applicable to Fairleigh Dickinson University degree programs and grades of A through C have been earned. Grades below C (C- through F) will not be accepted for transfer.

**c. Students with Credits Earned Toward a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) Degree** — Only grades of A through C are transferable.

**d. Students from Nonregionally Accredited Institutions** — Qualified students from other than regionally accredited institutions may request consideration for admission on the basis of successful past academic performance.

## Articulation Agreements

Fairleigh Dickinson University has articulation agreements with a number of New Jersey community colleges. Prospective community college transfer students are encouraged to contact the transfer counselor at their community college for more information or call the FDU Admissions Office at (800) 338-8803.

## Grades and Grade Points

For new students, transfer credits will not be computed in the cumulative grade point ratio (CGPR) earned at Fairleigh Dickinson University.

## Residency Requirement/Time Limit on Degree Completion

A transfer student may receive credit for either formal course work or may be considered for credit through proficiency examination to the extent that the credits transferred do not circumvent existing University policy requiring a minimum of 30 credits in residence including at least 50 percent of the credits required for the major. In those instances in which only the minimum number of credits are completed at Fairleigh Dickinson University, they must be taken in a time sequence equivalent to the seventh- and eighth-semester standing of the baccalaureate study.

Any course work completed more than 10 years before the projected date of the degree conference (including work for which credit is transferred from another college) shall be evaluated for its currency. Where it is deemed appropriate, the department will design a course of study to familiarize the student with more recent developments. The individual program will be outlined in writing to the student.

## Undergraduate Adult Admissions

Adult students are 25 years of age or older, who are interested in obtaining a bachelor's or associate's degree, a credit-based certificate or who wish to take courses for personal enrichment or professional development.

In response to the special needs of the adult learner, FDU offers two-year and four-year traditional and nontraditional academic degree programs, certificate programs and noncredit courses.

Adults can pursue full-time or part-time studies, choosing from a selection of day, evening, weekend, offsite and online classes, as part of the traditional or nontraditional term programs. Students can enroll as matriculating (degree seeking), nondegree, auditing or as noncredit students.

Student support services that offer extended hours are available in such areas as advising, academic resources and career planning. Trained personnel are ready to assist the adult throughout his/her program of study at FDU.

Opportunities for adult learners to earn academic credit include the University's Portfolio Assessment of experiential learning or "life/work experience" equal to college-level learning. After completion of six credits or two courses at FDU, adults can pursue experiential-learning credit by first attending a portfolio workshop that explains the program's format and process that could result in up to 30 academic credits.

Other credit options available for adult learners include: FDU Challenge Exams, CLEP, TECEP, Excelsior College exams, DSSTs, JSTs, NYU Language Proficiency Exams, ACE College Credit Recommendation Service Awards, FDU expert evaluated Corollary College Credit Recommendations for law enforcement, CPR and EMT (Basic and/or Paramedic). Professional certificate programs may also yield academic credit, such as FDU's Paralegal Stud-

ies, Certified Financial Planning and Professional Human Resources.

To apply for admissions, adult students should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admissions and submit it with a \$50.00 application fee. Adult applicants who are 25 years of age or older are required to provide the appropriate high school and/or college documents as outlined in the Admission Requirements section that follows.

To be considered for freshman admission, students must submit a completed Application for Undergraduate Admission, a \$50.00 nonrefundable application fee and an official high school transcript. Standardized test scores, either Scholastic Aptitude Test (SAT) or American College Testing (ACT), are required in some instances (contact the Admissions Office for more information).

While recommendation letters and a personal essay are not required as part of the admission process, the University reserves the right to request either before making a final decision on an applicant.

Students who are 25 years of age or older; or a veteran, who has graduated high school and served in any of the armed forces of the United States military for two years or more prior to their intended term of enrollment, are not required to provide an SAT or ACT score. The University, however, reserves the right to request additional information and supporting documents and to require further assessments, including an interview or an internal assessment. Contact the Office of Admissions. Applicants who desire guidance during the admissions process are encouraged to request admissions counseling.

For more information or to request an admissions counseling appointment, please write, call or email:

Office of Undergraduate Adult and Part-time Admissions  
Fairleigh Dickinson University  
1000 River Road, H-DH3-10  
Teaneck, New Jersey 07666  
(201) 692-2551  
Achieve@fdu.edu

## When to File an Application

1. The Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admissions may be submitted for the fall semester, spring semester, summer sessions, January winter session, trimester or eight-week terms.

2. Applications for admission are processed on a rolling basis and students may apply at any time prior to the start of classes. However, adult students are encouraged to **apply early to allow ample time to complete the application process.**

## Admission Requirements

Adult students who are 25 years of age or older may apply for admission to the University based on a high school diploma or the equivalent. Adult students who have previously attended an accredited college or university and have earned 24 or more credits are considered to be transfer students.

To apply for admission as a matriculating student (degree-seeking), the applicant should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admissions and submit it to the Office of Undergraduate Adult and Part-time Admissions with the \$50.00 application fee. An official copy of the applicant's academic transcript should be forwarded to the University by the applicant's high school and/or college(s). If the applicant obtained a General Equivalency Diploma (GED), a copy of the diploma and score sheet should be forwarded to the Office of Undergraduate Adult and Part-time Admissions.

Students who are 25 years of age or older; or a veteran, who has graduated high school and served in any of the armed forces of the United States military for two years or more prior to their intended term of enrollment, are not required to provide an SAT or ACT score. The University, however, reserves the right to request additional information and supporting documents and to require further assessments, including an interview or an internal assessment. Contact the Office of Admissions.

A student who wishes to enroll in credit courses without seeking admission to a degree program may apply as a nondegree student. To apply for admission as a nondegree student, the applicant should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admissions and submit

it to the Office of Undergraduate Adult and Part-time Admissions with the \$50.00 application fee and copy of a high school diploma or the equivalent. If the student has attended college, an unofficial transcript is requested. Students admitted under this status generally fall into the following categories:

1. Students who need additional courses to satisfy admission requirements to professional and graduate schools.

2. Students who intend to apply for a degree program but are unable to provide all the required documentation prior to registration for classes.

3. Students who wish to take courses for professional development and/or personal enrichment.

4. Applicants currently on the roster of another college who must apply as a visiting student.

Nondegree students are expected to maintain good academic standing, i.e., a minimum 2.00 grade point ratio. Upon completion of 16 credits, eligibility to continue as a nondegree student will be determined.

A nondegree student who wishes to apply for degree candidate status must fulfill all of the University's matriculation standards.

**Adult students who wish to enroll in noncredit courses and noncredit certificate programs should call the Office of Continuing Education at (201) 692-6500.**

## Part-time Evening, Weekend and Online College Students

Part-time evening, weekend and online students should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admission and submit it with a \$50.00 nonrefundable application fee.

Students who are 25 years of age or older; or a veteran, who has graduated high school and served in any of the armed forces of the United States military for two years or more prior to their intended term of enrollment, are not required to provide an SAT or ACT score. The University, however, reserves the right to request additional information and supporting documents and to require further assessments, including an interview or an internal assessment. Contact the Office of Admissions. A candidate for admission can make a personal

appointment with an admissions counselor in order to discuss admission eligibility and choice of educational program. Call the Office of Undergraduate Adult and Part-time Admissions at (201) 692-2551.

## When to File an Application

1. Applications for admission may be submitted for the fall semester, spring semester, summer sessions, January winter session, trimester or eight-week terms.

2. Applications for admission are processed on a rolling basis, and students may apply at any time prior to the start of classes. However, part-time students are encouraged to apply early to allow ample time to complete the application process.

3. Programs of study are included in a traditional or nontraditional program track. See Academic Calendars for details (**pages 4 and 5**).

## Admission Requirements

Students who intend to enroll in classes on a part-time, evening, weekend and online basis may apply for admission to the University based on a high school diploma or the equivalent. Students who have previously attended an accredited college or university and have earned 24 or more credits are considered to be transfer students.

To apply for admission as a matriculating student (degree-seeking), the applicant should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admission and submit it to the Office of Undergraduate Adult and Part-time Admissions with the \$50.00 application fee. An official copy of the applicant's academic transcript should be forwarded to the University by the applicant's high school and/or college(s) and include official transcripts from all colleges/universities. If the applicant obtained a General Equivalency Diploma (GED), a copy of the diploma and score sheet should be forwarded to the Office of Undergraduate Adult and Part-time Admissions. Students who are 25 years of age or older; or a veteran, who has graduated high school and served in any of the armed forces of the United States military for two years or more prior to their intended term of enrollment, are not required to provide an SAT or ACT score. The University, however, reserves the right to request additional information and supporting documents and to require further assessments, includ-

# Admissions

ing an interview or an internal assessment. Contact the Office of Admissions.

A student who wishes to enroll in credit courses without seeking admission to a degree program may apply as a nondegree student. To apply for admission as a nondegree student, the applicant should complete the Fairleigh Dickinson University Adult and Part-time Application for Undergraduate Admissions. Submit to the Office of Undergraduate Adult and Part-time Admissions with the \$50.00 application fee and an unofficial copy of a high school diploma or the equivalent. If the student has attended college, an unofficial transcript is requested. Students admitted under this status generally fall into the following categories:

1. Students who need additional courses to satisfy admissions requirements to professional and graduate schools.
2. Students who intend to apply for a degree program but are unable to provide all the required documentation prior to registration for classes.
3. Students who wish to take courses for professional development and/or personal enrichment.
4. Applicants currently on the roster of another college, who must apply as a visiting student.

Nondegree students are expected to maintain good academic standing, i.e., a minimum 2.00 grade point ratio. Upon completion of 16 credits, eligibility to continue as a nondegree student will be determined.

A nondegree student who wishes to apply for degree candidate status must fulfill all of the University's matriculation standards.

Students who wish to enroll in non-credit courses and noncredit certificate programs should call the Office of Continuing Education at (201) 692-6500.

## International Students

Inquiries regarding admission should be sent to:

Office of International Admissions  
1000 River Road, T-KB1-01  
Teaneck, New Jersey 07666, U.S.A.  
Telephone: +1-201-692-2205  
Fax: +1-201-692-2560  
Email: [global@fd.edu](mailto:global@fd.edu)

Applicants may apply online at [www.fdu.edu/apply](http://www.fdu.edu/apply).

## Admission

International students who are seeking admission to any undergraduate program must submit their application and official supporting documents to the Office of International Admissions.

An I-20 or DS-2019 form will be issued, under the guidelines established by the United States Department of Homeland Security U.S. Citizenship and Immigration Services (USCIS), to international students who have been accepted for full-time study and have submitted all the required documents. International students holding an F-1 or J-1 visa must enroll as full-time matriculated students taking a minimum of 12 credits each regular semester.

## When to File an Application

Applications for admission for the fall should be filed no later than July 1. Spring-semester applications should be filed no later than December 1. International students enrolling on an F-1 or J-1 student visa must meet all admission criteria to be accepted as full-time undergraduate students and must register for at least 12 credit hours each semester (excluding summer) to maintain student-visa status.

## Admission Requirements

International students must submit:

1. To be considered for freshman admission, students must submit a completed Application for Undergraduate Admission, a \$50.00 nonrefundable application fee and an official high school transcript. Standardized test scores, either Scholastic Aptitude Test (SAT) or American College Testing (ACT), are required in some instances (contact the Admissions Office for more information). While recommendation letters and a personal essay are not required as part of the admission process, the University reserves the right to request either before making a final decision on an applicant.
2. Applications for admission may be submitted for the fall semester starting in August, and the spring semester starting in September. Applications are processed on a rolling basis until the class is filled. Fairleigh Dickinson University also offers an early decision option with an application filing deadline of November 15.
3. Proof of English proficiency:

- Students whose native language is not English are required to submit at least one official test report with a minimum score of:

- TOEFL (Test of English as a Foreign Language): IBT-79, CBT-213 or PBT-550

or

- IELTS (International English Language Testing System): overall band 6.0

or

- SAT Evidence-based Reading and Writing: 480 or higher

or

- Pearsons: PTE 53.

- Undergraduate applicants who meet the University's academic requirements for the major of their choice and who have an intermediate level of English proficiency may be considered for admission to the Pre-University Program (PUP). The English level required for PUP admission is determined by the following:

- TOEFL IBT score from 60–78

- IELTS overall band score of 5.5

- An ELS Language Center Certificate of Completion of Level 110 of the English for Academic Purposes

PUP students take academic courses while improving their English-language skills, earning up to 11 credits toward their bachelor's degree.

- Students who are unable to meet the University's minimum English-proficiency requirement may apply for the intensive English language program provided by the ELS Language Centers on the University's Metropolitan Campus ([www.els.edu](http://www.els.edu)). The University offers conditional admission consideration for most undergraduate major programs.

- The University requires that all international students be tested at orientation to determine if additional English language and/or mathematics study is required. Test results may indicate further study is needed in English, English for Professional Success or mathematics developmental courses.

4. All international students applying for an F-1 or J-1 visa must provide evidence of financial support equal to the full cost of one academic year by submitting the Affidavit of Financial Support and a bank statement dated within the past six months.

5. All enrolling students are required to provide a course-by-course evaluation of

all academic course work completed outside the United States issued by an evaluation service accredited by NACES, The National Association of Credential Evaluation Services (see [www.naces.org](http://www.naces.org)).

## Nondegree Students

A student who wishes to enroll in credit courses without matriculating for a degree may apply as a **nondegree student**.

The applicant must file a Fairleigh Dickinson University **Adult and Part-time Application for Undergraduate Admission** with the \$50.00 nonrefundable fee and a copy of an unofficial high school diploma or the equivalent. If the student has attended college, an unofficial transcript is requested.

Students admitted under this status generally fall into the following categories:

1. Students who need additional courses to satisfy admissions requirements to professional and graduate schools.
2. Students who wish to take courses for professional development and/or personal enrichment.

Nondegree students must have prerequisites for courses and are expected to maintain good academic standing, i.e., a minimum 2.00 grade point ratio. Upon completion of 16 credits, eligibility to continue as a nondegree student will be determined.

A nondegree student who wishes to change to degree candidate status must fulfill all the University's matriculation standards.

## Auditors

An auditor is a student who completes all registration requirements but does not have any record kept of attendance or academic work. No grade is given for the course audited. A student taking a course(s) as an auditor waives all rights to take that course(s) for credit in the present or in the future. Applicants seeking to register as auditors must submit an Adult and Part-time Application for Undergraduate Admission and evidence of graduation from a secondary school. If college was attended, an unofficial transcript must be submitted. Upon admission, an Audit Form provided is to be completed with faculty signature(s) and/or a copy of faculty approval(s) then submitted to the Office of Enrollment Services for registration. Special, reduced auditor charges apply. See Registration, Tuition and Billing Information (pages 23–24).

## Credit for Prior Learning

In addition to previous college credit accepted in transfer, the University provides three distinct options that allow qualified students to receive academic credit for "experiential learning":

- Credit by examination;
- Credit for professional study and certification; and
- Credit for experiential learning through portfolio assessment.

## Credit by Examination

A number of nationally recognized educational organizations offer proficiency examinations in a wide range of subjects, including composition and literature, history and social sciences, science and mathematics, business, foreign languages and more.

Proficiency examination credit may be awarded for the College Level Examination Program (CLEP); Excelsior College Exams; the New York University Proficiency Examinations in Foreign Language; Defense Activity for Non-traditional Education Support (DSST); the Thomas Edison College Examination Program (TECEP); and Fairleigh Dickinson University Challenge Examinations.

Students enrolled at Fairleigh Dickinson University must obtain authorization forms and the required signature for approval to take specific tests from the Office of Enrollment Services.

Proficiency examinations may be used as substitutes for particular FDU courses, and credit toward degree requirements may be awarded by completion of approved examinations. These approved examinations, minimum acceptable scores and course equivalencies are designated on a list maintained in the Office of Enrollment Services and the Academic Advising Office. Students considering this option should consult with their academic adviser or the Academic Advising Office to determine the suitability of particular proficiency examinations to their major.

Acceptance of all proficiency tests is contingent upon the following provisions:

1. Up to 33 credits may be awarded toward some baccalaureate degrees;
2. All proficiency examinations must be taken before completion of the student's first 64 credits and applied toward those 64 credits only. Exceptions can be made for students transferring in with 32 credits or more;

3. If the proficiency examination duplicates previous course work, credits will not be awarded. Credits earned through the proficiency examinations are not included in the cumulative grade point ratio.

4. Transfer students may apply proficiency credits earned at institutions other than FDU to an FDU degree program. Official documentation is requested at the time of admission.

5. Failed courses taken at FDU cannot be replaced through proficiency examinations.

## Credit for Professional Study and Certification

Students who have completed formal training or professional development programs conducted by business, the military, law enforcement and public safety, government agencies or other organizations may be eligible to receive college credit if those organizations participate in the American Council on Education's (ACE) Credit Program or the National College Credit Recommendation Service (National CCRS).

Students interested in receiving ACE or National CCRS credit should submit transcripts to the Office of Admissions (new students) or check with their academic adviser to determine if such credit is applicable to their degree program (continuing students). Students may request a copy of their ACE transcript by calling the American Council on Education Transcript Service at (202) 939-9434. Students may contact National CCRS at (518) 486-2070.

Except for the Silberman College of Business, 6 undergraduate credits may be granted for Peace Corps volunteers (overseas service) and for VISTA (Volunteers in Service to America).

Additional credit may be granted at the discretion of the University.

## Credit for Experiential Learning through Portfolio Assessment

Portfolio assessment provides an opportunity for adult students to receive credit for experiential learning and apply it to their college program of study. The academic assessment of experiential learning is rigorous, and there are no guarantees as to the outcome. It is important to note that college credit is not given for experience but rather for documented learning that is equivalent to Fairleigh Dickinson University courses. A maximum of 30 credits may

# Admissions

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be earned. Students should consult their academic advisers to determine how these credits may apply to their degree programs. Students must successfully complete 6 credits of academic study at the University before they may participate in the portfolio assessment process.

Credit for experiential learning is awarded based on a comprehensive portfolio assessment process, which includes:

1. Approval by an academic adviser for placement of credits to be reviewed via portfolio assessment (Application for Approval). For further information, students should contact their major adviser or the Academic Advisement Center at the Metropolitan Campus at (201) 692-2339 or the Florham Campus at (973) 443-8753.
2. Participation in a Portfolio Workshop.
3. Submission of a completed portfolio based on **current** policies and procedures.

For information about the portfolio assessment process and to register for the Portfolio Workshop, call the Office of Continuing Studies, Office of Adult Education, at (201) 692-7153/6500.

## Readmission

Students requesting readmission to the University must submit a Fairleigh Dickinson University Application for Readmission to the Office of Undergraduate Adult and Part-time Admissions. The application is available in the Office of Enrollment Services, the Office of Undergraduate Adult and Part-time Admissions and the Office of International Admissions.

If the candidate has attended another educational institution since Fairleigh Dickinson University, the student is considered a returning transfer student and must contact the Office of Undergraduate Admissions (if planning to attend on a full-time basis) or the Office of Undergraduate Adult and Part-time Admissions (if planning to attend on a part-time basis) or the Office of International Admissions and submit the appropriate application(s). Official transcripts from all colleges and universities attended since leaving FDU must be submitted. Note: Standard admission requirements apply to the returning transfer student.

Readmitted students will be governed by the *Undergraduate Studies Bulletin* issued for the year of readmission and will be subject to the current admission requirements. Readmission is determined

by the department, school or college of the major area of study based on last attendance.

When a student returns to FDU after an absence of seven years or more, credit will not be recognized for courses in the student's major in which the student has previously received a grade of less than C (2.00). In addition, a student returning after a seven-year absence may opt, in writing, not to receive credit for any nonmajor courses in which the student has earned a grade of less than C (2.00). In that event, such courses will not be counted in the computation of the grade point ratio.

Students requesting readmission after withdrawal, suspension and/or dismissal will require additional review.

## Summer Sessions

Many on-campus, off-campus and online courses are offered during the summer months.

Students may register for a maximum of 6 credits per summer session. Exceptions can be granted on a case-by-case basis.

Regular degree and nondegree students can attend summer sessions (see section for Admission Requirements pages 11–14).

Students from other institutions must file a Fairleigh Dickinson University Application for Visiting College Students along with a \$50.00 application fee.

Note: An unofficial transcript from the home institution is needed to complete the admissions process. A complimentary transcript will be sent to the home campus upon completion of the summer term.

## Policy on Basic Skills Testing and Placement

### Florham Campus

Students at the Florham Campus are placed in English and mathematics courses according to SAT scores and high school grade point average.

### Metropolitan Campus

In order to place students in the writing and mathematics courses appropriate to their abilities, all undergraduates, including international students, must participate in basic skills testing.

These tests, administered by the Academic Resource Center (<http://view2.fdu.edu/metropolitan-campus/center-for-academic-student-services/academic-resource-center/>) at the Metropolitan Campus, are required of

1. all new freshmen,
2. all transfer students who have not completed the equivalent of ENWR1001 and a minimum of one course in mathematics (depending on college requirement) and
3. all other students who plan to pursue a degree program.

Basic skills tests should be taken prior to the start of a student's first semester with FDU.

Developmental course work in English and/or mathematics must be completed before a student may enroll in a college-level course in these disciplines. It is recommended that students complete all developmental course work (ENWR0098, ENWR0099; MATH0298) in their first semester.



## Financial Aid and Scholarships\*

### General

Fairleigh Dickinson University administers academic and need-based funding from federal, state and University sources. Financial aid is available to qualified full-time and part-time matriculated students. New and returning students are encouraged to file the Free Application for Federal Student Aid (FAFSA) no later than February 15. The FAFSA must be filed EVERY year for which financial aid is requested.

Financial aid is processed annually and awards are based on continued financial need, enrollment status, availability of funds and demonstrated satisfactory academic progress. In addition, a student may not be in default and/or may not owe a refund on any Title IV and/or HEA loans or grants.

International students are eligible only for academic scholarships as well as athletic funding (as provided by the National Collegiate Athletic Association [NCAA] guidelines). International students are not eligible for federal, state or University need-based financial aid.

Students enrolled with Fairleigh Dickinson University at the Community College Partnership locations should reference the *Community College Partnership Booklet* designed to relay the unique financial aid information and processes particular to those academic programs. The booklet on University Partnerships is available from the Admissions Office at (201) 692-7310.

All available sources and types of academic and need-based funding are detailed throughout the "Financial Aid and Scholarships" section.

### University Funded Programs

#### University Scholarships

Fairleigh Dickinson University funds an academic-based scholarship program.

The University offers a variety of academic scholarships, and all undergraduate applicants are automatically reviewed for scholarship along with their application for admission.

#### Merit Scholarships

Merit scholarships range from \$10,000.00 to \$52,000.00 and are awarded for a maximum of four years. Students must maintain the appropriate grade point ratio in order to retain their merit scholarship.

#### Phi Theta Kappa Scholarship

Any transfer students admitted to the University who are members of the Phi Theta Kappa Honor Society may be eligible for Phi Theta Kappa Scholarships. An applicant must submit a copy of the Phi Theta Kappa Membership Certificate to the Office of Admissions at the time of application. A minimum 3.00 grade point ratio must be maintained to renew eligibility for the Phi Theta Kappa Scholarship. A student must have completed his/her associate degree to be eligible. For more information about the Phi Theta Scholarship contact the Office of Admissions at (800) 338-8803.

#### Transfer Scholarship

All transfer students admitted to the University who have completed or in the process of completing a minimum of 24 college credits are automatically evaluated for Transfer Scholarships. For more information about the Transfer Scholarships contact the Office of Admissions at (800) 338-8803.

#### Combined Degree Advantage Program

Students who are admitted or subsequently admitted to a 4+1 combined degree program can earn their bachelor's plus master's degrees in five years with possible continued scholarship support in the student's fifth year. For a list of eligible programs and for more information, contact the Office of Admissions at (800) 338-8803.

#### Athletic Scholarship

Athletic scholarships are available for male and female athletes at the University's Metropolitan Campus. All scholarship recipients are required to file the FAFSA application annually and are subject to the Division I rules and regulations of the National Collegiate Athletic Association (NCAA). For further information, contact the Metropolitan Campus Office of Athletics at (201) 692-2208.

#### University Need-based Aid

Fairleigh Dickinson University offers need-based funding in addition to its extensive scholarship and grant program. Students wishing to apply for need-based University funding must file the FAFSA (Free Application for Federal Student Aid). To renew need-based funding, students must file the FAFSA no later than February 15, maintain satisfactory academic progress (see page 22), maintain full-time enrollment and submit all requested documentation to the Office of Financial Aid.

The University has several need-based programs available for undergraduate students. These grant programs are itemized on this page and page 18.

#### Fairleigh Dickinson University Grant

The University offers an FDU Grant for full-time students valued up to \$20,000.00 per academic year (traditional fall and spring terms only) for a maximum of four years. Eligibility is determined through filing the FAFSA. Renewal of the grant is subject to academic progress, full-time enrollment and relative financial need.

\*Material in this section is subject to change. Contact one of the campus Financial Aid Offices for the most current information.

# Financial Aid and Scholarships

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## Other University Grants

### ***Child of Alumni Grant***

An annual grant of \$1,500.00 is available to undergraduate sons and daughters of Fairleigh Dickinson University alumni. This grant is based upon full-time enrollment only. The student must indicate on the University Admissions application that either parent is a Fairleigh Dickinson University graduate.

### ***Community College-FDU Scholars Program***

Students matriculated toward an A.A., A.S. or A.A.S. degree at participating community colleges who enroll in the Community College-FDU Scholars program and meet the requirements for admission to Fairleigh Dickinson University are awarded a grant equivalent to 40 percent of the value of the flat-rate undergraduate tuition rate. Students who are enrolled in an undergraduate program at FDU with a more favorable tuition rate than the flat-rate undergraduate tuition and those receiving the Phi Theta Kappa Scholarship are not eligible. Renewal of the grant requires a student maintain satisfactory academic progress.

Community College-FDU Scholars who achieve a minimum cumulative grade point ratio (GPR) of 3.50 or greater are also awarded a \$1,000.00 merit scholarship. Renewal of the merit scholarship requires a minimum cumulative GPR of 3.00 or greater while enrolled at FDU.

Community College-FDU Scholars who elect to reside on either the Metropolitan Campus or Florham Campus are awarded a \$1,500.00 housing grant. The housing grant may not be used for any fees other than room/board and therefore on-campus residency is required for renewal.

## Federally Funded Programs

There are a number of federally funded financial aid programs; for example, Pell and SEOG grants, Federal Direct Loans, as well as Work Study Programs. For a student to be eligible for any of these programs, he/she must be matriculated, maintain satisfactory academic progress and finally, he/she must file the FAFSA (Free Application for Federal Student Aid) by February 15 every year. Each of the federal programs available at the University are detailed as follows:

### **Federal Grant Programs**

#### ***Federal Pell Grant***

Undergraduate students enrolled for a minimum of three credits per semester may be eligible for a Federal Pell Grant. Eligibility is determined upon data received from the FAFSA application.

#### ***Federal Supplemental Education Opportunity Grant (FSEOG)***

Undergraduate students must be "Pell eligible" to receive an FSEOG award. In addition, a student must be registered full time.

### **Federal Work Programs**

#### ***Federal Work Study***

Eligibility for Federal Work Study is determined by the information supplied on the FAFSA; a student must demonstrate financial "need" to be eligible for Federal Work Study funding.

Students awarded funds under the Federal Work Study Program (FWS) may be assigned positions either on campus or off campus at cooperating nonprofit community service agencies. Annual awards usually range from \$500.00 to \$2,000.00 per academic year.

Federal Work Study positions are coordinated and processed by the Office of Career Development on each campus. A Federal Work Study student may not work more than 20 hours per week and no more than seven hours in one day. Students are paid biweekly.

## Federal Veterans' Educational Assistance Programs

### ***Veterans' Educational Benefits***

VA (Veterans' Assistance) educational benefits are available to eligible veterans for attendance at institutions of higher education (e.g. four-year university, community colleges, etc.), for undergraduate, graduate and online programs and other degree- and non-degree-granting courses. Benefits are based on the VA Program/Chapter (see next page) for which students are eligible (defined by the type and length of military service) and the number of classes for which they are enrolled during a given semester (e.g., full-time, part-time, etc.). Payments are made by the U.S. Department of Veterans Affairs either directly to the student/veteran or, in the case of the Post 9/11 GI Bill, directly to the school. It is important to note that cost of tuition and fees to the University remains the responsibility of the student/veteran. It is recommended that students consult with the director, Office of Veterans Services, at Fairleigh Dickinson University for more detailed information on any of these programs on the website [www.fdu.edu/veterans](http://www.fdu.edu/veterans).

### ***The New Post 9/11 GI Bill***

The new Post 9/11 GI Bill — also commonly known as Chapter 33 — is for individuals with at least 90 days of aggregate service on or after September 11, 2001, or individuals discharged with a service-connected disability after 30 days. This benefit provides up to 36 months of educational benefits, generally payable for 15 years following release from active duty.

It is important to note that Fairleigh Dickinson University has agreed to participate in the Yellow Ribbon Program, that is a provision of the Post-9/11 Veterans Educational Assistance Act of 2008. Under this program, FDU has agreed to fund tuition expenses for eligible veterans that exceed the highest public in-state undergraduate tuition rate by matching a VA contribution of 50 percent with an FDU contribution for the same amount.

This program will provide the following benefits for eligible individuals:

- Tuition and fees paid directly to the school are not to exceed the cost of public tuition and fees. The cost of private university tuition and fees may be fully covered for those veterans eligible for the Yellow Ribbon Program.

# Financial Aid and Scholarships

- A monthly housing allowance based on the Basic Allowance for Housing for an E-5 with dependents at the location of the school.

- An annual books-and-supplies stipend of \$1,000.00 paid proportionately based on enrollment.

If students are enrolled exclusively in online training they will receive a reduced housing allowance. If students are on active duty, they will not receive the housing allowance. If the student is the spouse of an Active Duty Servicemember and is using transferred benefits, he or she will not receive the housing allowance.

## **The Montgomery GI Bill (MGIB)**

As provided under the Montgomery GI Bill (MGIB) — also commonly known as Chapter 30 — students who entered the military after June 30, 1985, are eligible for educational benefits if they elected to reduce their monthly salary by \$100.00 for the first 12 months while on active duty. The MGIB program provides a maximum of 36 months of educational benefits. However, additional entitlements may be available. Consult with the director, Office of Veterans Services, at Fairleigh Dickinson University at [www.fdu.edu/veterans](http://www.fdu.edu/veterans). This benefit may be used for degree and certificate programs, flight training, apprenticeship/on-the-job training and correspondence courses. Remedial, deficiency and refresher courses may be approved under certain circumstances. Generally, benefits are payable for 10 years following release from active duty. For more information on the MGIB see [https://www.benefits.va.gov/gibill/docs/pamphlets/ch30\\_pamphlet.pdf](https://www.benefits.va.gov/gibill/docs/pamphlets/ch30_pamphlet.pdf).

## **Survivors' and Dependents' Educational Assistance Program (DEA – Chapter 35)**

Dependents' Educational Assistance (DEA – Chapter 35) provides education and training opportunities to eligible dependents of certain veterans. The program offers up to 45 months of educational benefits. These benefits may be used for degree and certificate programs, apprenticeship and on-the-job training. A spouse may take a correspondence course. Remedial, deficiency and refresher courses may be approved under certain circumstances.

## **Federal Tuition Assistance**

Military Tuition Assistance is a benefit paid to eligible members of the Army, Navy, Marines, Air Force and Coast Guard. Congress has given each service the ability to pay up to \$250.00 per credit for the tuition expenses of its members. A member is eligible for up to \$4,500.00 a fiscal year in Federal Tuition Assistance benefits.

Each service has its own criteria for eligibility, obligated service, application process and restrictions. This money is usually paid directly to the institution by the individual services.

## **The Montgomery GI Bill–Selected Reserve (MGIB-SR)**

The Montgomery GI Bill–Selected Reserve (MGIB-SR) program — commonly known as Chapter 1606 — may also be available if the student is a member of the Selected Reserve, which includes the Army Reserve, Navy Reserve, Air Force Reserve, Marine Corps Reserve, Coast Guard Reserve, Army National Guard and the Air National Guard. Students may be entitled to receive up to 36 months of education benefits.

Period of eligibility: (a) If the students' eligibility to this program began on or after October 1, 1992, the period of eligibility ends 14 years from their beginning date of eligibility or on the day they leave the Selected Reserve. (b) If the students' eligibility to this program began prior to October 1, 1992, their period of eligibility ends 10 years from their beginning date of eligibility or on the day they leave the Selected Reserve.

For more information on the MGIB-SR program see [www.benefits.va.gov/gibill/docs/pamphlets/ch1606\\_pamphlet.pdf](http://www.benefits.va.gov/gibill/docs/pamphlets/ch1606_pamphlet.pdf).

## **VA Vocational Rehabilitation**

A veteran who is eligible for an evaluation under Chapter 31 must complete an application and meet with a VA Vocational Rehabilitation Counselor (VRC). If the VRC determines that a handicap exists as a result of a service-connected disability, the veteran is found entitled to services. Entitlement to services is established if the veteran is within his or her 12-year basic period of eligibility and has a 20 percent or greater service-connected disability rating.

The VA Vocational Rehabilitation Bill, under Chapter 31, pays the cost of tuition, fees, books, equipment and supplies. The

veteran also receives a monthly subsistence allowance. Eligible veterans must apply online at the Vocational Rehabilitation and Employment Programs website [www.benefits.va.gov/vocrehab/](http://www.benefits.va.gov/vocrehab/). Veterans may be entitled to receive up to 36 months of educational benefits.

## **Other Veterans' Administration Educational Benefits**

There are additional veterans' educational benefits available for the dependents and widows of veterans who died of service-related causes.

Individuals in the Selected Reserve (Chapter 106) and those who contributed to the Veterans Education Assistance Program (VEAP-Chapter 32) also may be eligible for VA educational benefits.

For additional information regarding veterans' educational benefits, contact the Office of Veterans Services at Fairleigh Dickinson University at [www.fdu.edu/veterans](http://www.fdu.edu/veterans) and/or the State of New Jersey Department of Military and Veterans Affairs State Approving Agency, PO Box 340, Eggert Crossing Road, Trenton, New Jersey 08625.

## **Federal Loan Programs**

### **Federal Direct Loans**

Eligible students may borrow from the Federal Direct Loan Program. There are two types of Federal Direct Loans from which a student may borrow.

The *Federal Direct Subsidized Loan* is available to eligible undergraduate students with financial need. While in school at least half-time (6 credits), interest is paid by the U.S. Department of Education. **For first-time borrowers who receive the loan on or after July 1, 2013**, there is a limit on the maximum period of time one may receive the Direct Subsidized Loan. These borrowers may not receive the Direct Subsidized Loan for more than 150 percent of the published length of the student's program.

The *Federal Direct Unsubsidized Loan* does not require that a student demonstrate financial need. Interest on the loan begins to accrue upon disbursement. Borrowers may choose not to pay interest while in school and during grace periods, periods of deferment or forbearance, but interest will accrue and be added to the principal amount of the loan.

# Financial Aid and Scholarships

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Both the Direct Subsidized and Direct Unsubsidized Loan programs offer a six-month grace period after a student graduates or drops below half-time enrollment. For new Direct Subsidized Loans made from July 1, 2012, to June 30, 2014, interest will accrue during the grace period and will be capitalized if unpaid by the borrower.

The interest rate is tied to financial markets and is determined each June for new loans made for the upcoming award year (July 1 to the following June 30). Each loan will have a fixed interest rate for the life of the loan and therefore students borrowing over multiple years may have loans at varying interest rates. There is a loan fee paid by borrowers at the time of disbursement, which, at the time of printing, is 1.066 percent.

The annual and aggregate limits for the loan programs are as follows:

#### *First Year Undergraduate Annual Loan*

Dependent Students — \$5,500; no more than \$3,500 in Direct Subsidized Loans  
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — \$9,500; no more than \$3,500 in Direct Subsidized Loans

#### *Second Year Undergraduate Annual Loan*

Dependent Students — \$7,500; no more than \$4,500 in Direct Subsidized Loans  
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — \$10,500; no more than \$4,500 in Direct Subsidized Loans

#### *Third Year and Beyond Undergraduate Annual Loan*

Dependent Students — \$7,500; no more than \$5,500 in Direct Subsidized Loans  
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — \$12,500; no more than \$5,500 in Direct Subsidized Loans

#### **Subsidized and Unsubsidized**

##### **Aggregate Loan Limit**

Dependent Students — \$31,000; no more than \$23,000 in Direct Subsidized Loans  
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — \$57,500; no more than \$23,000 in Direct Subsidized Loans

#### **Federal Nursing Loan Program**

Students enrolled as matriculated nursing students with “exceptional financial need” as determined by the information supplied on the FAFSA may apply for a Federal Nursing Loan. The student must maintain minimally half-time enrollment. Annual awards range from \$500.00 to \$4,000.00 per academic year. Contact the Fairleigh Dickinson University Office of Student Loan and Repayment (201-692-2575) for further details regarding repayment and deferment of Federal Nursing Loans.

#### **Federal Direct PLUS Loan Program**

The Federal Direct PLUS Loan is a credit-based loan program for the parent or guardian of the undergraduate student. Parents of matriculated students enrolled at least half-time may borrow up to the cost of education less any other financial aid received by the student per academic year. Repayment of the PLUS loan begins 60 days after disbursement of the funds to the University. Parents have up to 10 years to repay the loan with a minimum payment of \$50.00 per month. To be eligible for a PLUS loan, the student must file the FAFSA, and the parent (as well as the student) may not be in default on his/her federal loans. The interest rate is tied to financial markets and is determined each June for new loans made for the upcoming award year (July 1 to the following June 30). Each loan has a fixed interest rate for the life of the loan and therefore students borrowing over multiple years may have loans at varying interest rates. There is a loan fee paid by borrowers at the time of disbursement, which, at the time of printing, is 4.264 percent.

## New Jersey State-funded Programs

There are a variety of New Jersey state-funded financial aid programs; including, academic scholarships, need-based grants and loans. For students to be eligible for any of these programs, he/she must be matriculated, maintain satisfactory academic progress and be a New Jersey resident. To establish eligibility for any need-based funding, a student must also file the FAFSA (Free Application for Federal Student Aid) and meet established state deadlines. Each of the New Jersey state programs available at the University are detailed as follows:

#### **New Jersey State (NJS) Scholarship Programs** **Governor's Urban Scholarship Program**

The Governor's Urban Scholarship Program provides a merit award to high-achieving students who reside in New Jersey's 14 designated high-need communities. Annual awards of up to \$1,000 are available for qualified students. Students must rank within the top five percent of their class and have a minimum 3.00 grade point average at the end of their junior year of high school and meet other basic eligibility and renewal criteria.

#### **NJ Student Tuition Assistance Reward Scholarship II (NJ STARS II)**

The NJ STARS II program allows successful NJ STARS scholars to transfer to a New Jersey four-year college or university and earn a bachelor's degree. The NJ STARS II Scholarship is valued at \$1,250.00 per semester (\$2,500.00 per academic year — traditional fall and spring semesters only). Students must be NJ STARS recipients or non-funded during the semester of county college graduation and graduate with an associate's degree and grade point ratio of 3.25 or higher. While there is no consideration of financial need, the maximum family income (taxable and untaxable) must be less than \$250,000.00. In addition, the student must be enrolled full-time, apply for all forms of state and federal need-based grants and merit scholarships and begin NJ STARS II program participation no later than the second semester immediately following county college graduation.

# Financial Aid and Scholarships

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## **Need-based New Jersey State (NJS) Grant Programs**

### ***NJS TAG Award***

To establish eligibility for a Tuition Aid Grant (TAG), a student must be a resident of New Jersey for a minimum of 12 months prior to receipt of the TAG grant. In addition, he/she must be enrolled full-time at a four-year New Jersey college or university. The TAG award is determined upon the need of the student as supplied by the information on the FAFSA. The TAG award is valued up to \$12,938.00 for the 2018–2019 award year per academic year (traditional fall and spring terms only).

### ***NJS Educational Opportunity Fund (EOF) Grant***

The NJS Educational Opportunity Fund (EOF) provides financial assistance and academic support services to economically and educationally disadvantaged students. To be eligible, students must meet state-established income guidelines and be New Jersey state residents for at least 12 consecutive months prior to application. Only first-time, full-time matriculated freshmen are eligible to be admitted to the EOF program. Transfer students who were EOF program participants at their previous school are also eligible, but are not guaranteed to receive an EOF grant at the time of transfer.

EOF grant awards are valued up to \$2,500.00 per academic year (traditional fall and spring semesters only). All incoming EOF program participants must attend and successfully complete a residential pre-freshman EOF Summer Program. EOF students remain a part of the EOF program as long as they continue to meet the program and income guidelines.

Prospective students should contact the Office of Admissions for further information.

### ***NJCLASS Loan Program***

The NJCLASS loan program is a credit-based loan program for either the student or the parent. Applicants may borrow up to the cost of education less any other financial aid. To apply and for additional information regarding repayment and deferment of NJCLASS loans contact the New Jersey Higher Education Student Assistance Authority at [www.hesaa.org](http://www.hesaa.org).

## **Privately Funded Scholarship**

### ***Sammartino Scholarship***

The Peter Sannmartino Endowment and the Sylvia Sannmartino Endowment are scholarship funds which were created through the bequests left by the University's founder and first president, Peter Sannmartino, and his spouse, Sylvia Sannmartino. Scholarships are available to students in the QUEST program in the Peter Sannmartino School of Education. A demonstration of the desire to teach is one of the criteria. Scholarships up to one half of tuition are awarded.

## **Additional Pertinent Aid Information**

### ***Terms and Conditions of Financial Aid Awards***

There are a number of terms and conditions for financial aid from federal, state and institutional sources. Terms and conditions are provided at the time a financial-aid award notice is sent. The terms and conditions are as follow:

Financial-aid offers are based on attendance as a full-time student and anticipated housing plans as reported. Students are required to inform the Office of Financial Aid in writing immediately of any changes in enrollment or housing plans as financial aid may be re-evaluated accordingly.

If selected for verification by the U.S. Department of Education, additional documentation will be required and may lead to revisions in the financial-aid awards offered. The Office of Financial Aid reserves the right to request verification of any data submitted by the student and/or parent(s) that was considered in the financial-aid award offer. Financial-aid award offers are subject to the receipt and processing of information/documentation requested by the Office of Financial Aid.

Financial-aid award offers are contingent upon maintaining satisfactory academic progress (SAP) toward completion of the degree. The Office of Financial Aid reviews SAP for each financial-aid recipient at the conclusion of each term. Failure to maintain satisfactory academic progress will result in the loss of financial-aid funding. A student must be matriculated and enrolled in course work leading to a degree.

A New Jersey Tuition Aid Grant (TAG), if listed on the award notice, is estimated until the Higher Education Student Assistance Authority (HESAA) of New Jersey makes an actual award. HESAA will send a Student Eligibility Notice (SEN) to students that detail actual award amounts and may also request additional documentation for final award determination. **It is the responsibility of the student to submit all requested documentation to HESAA in a timely fashion to meet state grant deadlines and satisfy all requirements for eligibility to ensure payment of a TAG award.**

The University awards grants and scholarships from University operating funds and reserves the right to substitute

# Financial Aid and Scholarships

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funding received from private or endowed sources. In such an event, a revised Financial Aid Notice of Award will be sent to the students detailing the substitution.

Receipt of financial assistance from any sources may affect eligibility for financial aid as detailed on the financial-aid award notification. Students are *required* to notify the Office of Financial Aid of receipt of additional awards.

Federal and state awards are based on estimated funding levels. The Office of Financial Aid reserves the right to make adjustments as a result of changes in federal and/or state funding levels.

The awards detailed on the award notification apply only to the academic year indicated on the notification. Students must apply each year and maintain satisfactory academic progress (as required by both the U.S. Department of Education and Fairleigh Dickinson University) for consideration of renewed eligibility.

## Renewal of Financial Aid

A student must maintain the minimum requirements for the renewal of any scholarship funding (as was outlined previously and in the original scholarship notification letter).

Students who receive need-based financial aid from any source are eligible to apply for a renewal of this aid. To be eligible for a renewed, need-based financial-aid package, students must be sure to complete the following:

1. File the FAFSA application no later than February 15 (including the correct Federal School Code: 002607 for the Metropolitan Campus (Teaneck, New Jersey) and 004738 for the Florham Campus (Madison, New Jersey));

2. Complete the verification process (if selected by the U.S. Department of Education — students will be notified by the Office of Financial Aid of the required documents);

3. Maintain Satisfactory Academic Progress as mandated by the U.S. Department of Education.

## Satisfactory Academic Progress

The U.S. Department of Education requires all students who receive financial aid maintain “Satisfactory Academic Progress (SAP)” to establish continued eligibility for financial aid-funding.

As required, the Office of Financial Aid reviews all financial-aid recipients for the appropriate academic progress to determine renewal eligibility once annually (at the conclusion of the spring semester). Failure to maintain academic progress will result in the loss of financial-aid funding until eligibility is re-established by completing the appropriate course work and/or achieving the appropriate grade point ratio (GPR). A notification will be sent to the student after the review is completed, informing them of their standing.

Undergraduate students must achieve an overall cumulative GPR of 2.00 and successfully complete at least 67 percent of the credits attempted. All credits, including developmental, transfer and college-level courses will be counted to determine credit hours. Withdrawals and incompletes will be included in the calculation of attempted credits. Undergraduate students are required to complete a minimum of 120 credits to obtain their degrees but may not receive federal aid for more than 190 credits (150 percent).

Students who fail to achieve SAP may appeal for one semester of probation. They will be required to devise an academic plan that will put them back on course for making SAP. Students may submit their Academic Plan (<http://view2.fdu.edu/dwnld/22876>) to the Office of Financial Aid for review in order to be eligible to receive funding. Students who do not meet all SAP requirements or fail to meet the conditions of their Academic Plans in the following semester will not qualify for financial aid. Students who lose eligibility due to SAP will regain eligibility when SAP requirements are met.

## Repeated Courses

The U.S. Department of Education has recently published new regulations which impact students who repeat courses. These regulations are part of a series called Program Integrity Rules and are effective July 1, 2012.

Beginning July 1, 2012, students may only receive federal funding aid for one repetition of a previously passed course. Students taking a required repeat of a course should work with the Office of Financial Aid to ensure those credits are counted appropriately for financial-aid eligibility. Please note that the student may need to provide documentation from

his/her adviser regarding the requirement to repeat.

The U.S. Department of Education is working on additional guidance which may provide for additional allowable circumstances. Do not hesitate to contact the Office of Financial Aid at [finaid@fdu.edu](mailto:finaid@fdu.edu).

## Tuition Payment Options

Fairleigh Dickinson University makes every attempt to meet a student’s full financial need. However, it is possible that the financial-aid package may not cover all college expenses. The University does not guarantee the ability to meet a student’s full financial aid. As a result, there may be an amount left between the federal, state and family contributions, the amount of aid offered by the University and the total cost of education. If this is the case, consider the following options:

### Installment Plan

Fairleigh Dickinson University offers a University-administered semester payment plan. A family can make four regularly scheduled monthly payments during an academic semester without interest. An enrollment form and semester fee of \$45.00 are required.

## Refunds and Return of Title IV Calculations

Full or partial withdrawal from the University while a semester is in progress will result in the recalculation of the existing comprehensive financial-aid package. A student must “earn” financial-aid eligibility during a semester via attendance during that same semester.

To earn the full value of the existing comprehensive financial-aid package, the student must attend minimally 60.01 percent of the semester in question. A student who withdraws or adjusts his/her enrollment status will have his/her financial-aid package adjusted per the federal, state and University guidelines.

Specifically, the value of the existing awards will be adjusted according to the value of aid actually earned by the student’s attendance for the respective semester. This calculation is applied to all components of the financial-aid package.

# Registration, Tuition and Billing Information

## Registration, Tuition and Billing Information

### Registration: Fall, Spring, Summer and Winter

New students are notified concerning registration by the Admissions Office.

Continuing students receive advanced registration privileges. This advanced registration begins in April for the summer and fall terms and mid-November for the spring and winter terms. The scheduling of the date for each continuing student to register is based upon credit hours earned, with those closest to graduation receiving the highest priority.

Continuing students may register online through WebAdvisor between 8 a.m. and 9 p.m. starting in the first day of priority registration up to the day before a class begins. Refer to the Enrollment Services link at <http://inside.fdu.edu> for further details.

All accounts are carried in the name of the student. Financially delinquent students will not be allowed to register for courses, and academic records will be withheld until all financial obligations to the University have been satisfied.

### Tuition and Fees

All fees, tuition and charges are subject to change at any time at the discretion of the University's Board of Trustees. These fees are 2018–2019 fees. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.

#### Full-time Students

Application fee.....\$50.00

All students applying to the University for the first time and all students re-applying after a lapse of one or more semesters will be charged the application fee, which will not be refunded or credited to tuition.

#### Tuition

- Full-time Undergraduate Students, Metropolitan Campus\* .....39,686.00
- Full-time Undergraduate Students, Florham Campus\* ..... 42,096.00

- Continuing Undergraduate Students per credit (Full-time only; for programs not billed at the flat rate)..... \$1,272.00
- Graduate Students master's rates based on Academic Program
  - Maxwell Becton College of Arts and Sciences* — all programs per credit..... 1,272.00
  - Silberman College of Business* — all programs per credit..... 1,334.00
  - Anthony J. Petrocelli College of Continuing Studies* — all programs per credit..... 1,272.00
  - University College: Arts • Sciences • Professional Studies*
    - Computer Sciences and Engineering per credit..... 1,334.00
    - Education per credit..... 1,272.00
    - History, Political Science and International Affairs per credit..... 1,272.00
    - Natural Sciences per credit..... 1,272.00
    - Nursing and Allied Health per credit..... 1,334.00
    - Psychology per credit..... 1,272.00
    - Systems Science per credit..... 1,334.00

#### Doctoral Programs

- Clinical Psychology per credit..... 1,391.00
- School Psychology per credit..... 1,391.00
- Nursing per credit..... 1,391.00

#### Residence halls\*

- Rutherford Hall and Park Avenue Residence Hall, Florham Campus
  - Single Occupancy..... 16,716.00
  - Double Occupancy..... 11,250.00
  - Triple Occupancy..... 9,392.00
- Twombly Halls, Florham Campus
  - Single Occupancy..... 13,054.00
  - Double Occupancy..... 8,810.00
  - Triple Occupancy..... 7,378.00

- Village 1–8, Florham Campus
  - Single Occupancy.....\$13,054.00
  - Double Occupancy..... 8,810.00
  - Triple and Four-Person Suite.....7,378.00
  - Conversion Suite.....8,810.00
- Village 9 Danforth, Florham Campus\*
  - Single Occupancy..... 15,670.00
  - Double Occupancy..... 10,904.00
- Northpointe, Metropolitan Campus
  - Single Occupancy..... 15,842.00
  - Double Occupancy..... 10,614.00
  - Triple Occupancy.....8,872.00
- University Court, Metropolitan Campus with Kitchenettes\*\*
  - Single Occupancy..... 14,066.00
  - Double Occupancy.....9,438.00
  - Triple Occupancy.....7,890.00
  - Double: Honors and Global Scholars — Year-round Housing.....9,912.00
- University Court, without Kitchenette
  - Single Occupancy..... 13,322.00
  - Double Occupancy..... 8,934.00
  - Triple Occupancy.....7,478.00
- Linden Halls and International House
  - Single Occupancy..... 14,040.00
  - Double Occupancy..... 8,764.00
  - Triple Occupancy.....7,336.00
  - Linden Six — Year-round Housing\*\*..... 9,962.00
  - Linden — Year-round Housing Single..... 15,976.00

#### Food service for the academic year:

- A) Unlimited meals + \$100.00 flex plan..... 4,606.00
- B) Unlimited meals + \$200 flex plan..... 4,806.00
- C) Unlimited meals + \$200 flex plan + \$100 Fairleigh1 Card..... 5,006.00

\*Fee inclusive of fall and spring semesters. Excluded are vacation, summer session, intersession and special contractual arrangements. Off-peak rates per week are: for residence halls, \$326.00, and for food service, where available, \$158.00.

\*Year-round, 12 months.

\*\*Residents in these rooms are required to take D meal plan.

\*Full-time students are charged a flat-fee tuition in the spring and fall semesters. Students are permitted to register for 12 to 18 credits per semester.

# Registration, Tuition and Billing Information

— D) 8 meals + \$200.00 flex plan*	\$3,518.00
Technology fee	906.00
Wellness Education fee	140.00
Returned check charge (NSF, no sufficient funds)	25.00
Transcript fee per copy	5.00
New student fee (includes orientation fee) nonrefundable (international students, new freshmen and transfers)	815.00
Graduation fee (associate and bachelor degrees)	240.00
Health and major medical insurance per year**	
— International students	1,581.00
— U.S. citizens	1,581.00
Experiential learning credits	
— CLEP per 6-credit posting	260.00
— Peace Corps per 6-credit posting	260.00
— VISTA per 6-credit posting	260.00
— Special Challenge Examinations, Experiential Learning and other University-evaluated credit per 6-credit posting	260.00
Auditing fee	
— Regular (per course)***	1,272.00

## Part-time Students

Application Fee	50.00
All students applying to the University for the first time and all students reapplying after a lapse of one or more semesters will be charged the application fee, which will not be refunded or credited to tuition.	
Tuition for undergraduate courses per credit	997.00
Per-credit rate for full-time students not subject to flat-rate tuition	1,272.00
— Graduate Students master's rates based on Academic Program	
<i>Maxwell Becton College of Arts and Sciences</i> — all programs per credit	1,272.00
<i>Silberman College of Business</i> — all programs per credit	1,334.00

\*Available only to graduate students and students with full kitchens or an approved meal plan request. However, these students may take plan A.

\*\*U.S. citizens can be waived with documentation of alternative coverage. International students arriving before the fall semester for orientation will be charged \$440.00 for summer 2018.

\*\*\*Add \$10.00 registration fee per semester and any required course fees.

<i>Anthony J. Petrocelli College of Continuing Studies</i> — all programs per credit	\$1,272.00
<i>University College: Arts • Sciences • Professional Studies</i>	
Computer Sciences and Engineering per credit	1,334.00
Education per credit	1,272.00
History, Political Science and International Affairs per credit	1,272.00
Natural Sciences per credit	1,272.00
Nursing and Allied Health per credit	1,334.00
Psychology per credit	1,272.00
Systems Science per credit	1,334.00
Doctoral Programs	
Clinical Psychology per credit	1,391.00
School Psychology per credit	1,391.00
Transcript fee per copy	5.00
Returned check charge (NSF, no sufficient funds)	25.00
Graduation fee (associate and bachelor degrees)	240.00
Technology fee	422.00
Wellness Education fee (per credit)	4.00
Experiential learning credits	
— CLEP per 6-credit posting	260.00
— Peace Corps per 6-credit posting	260.00
— VISTA per 6-credit posting	260.00
— Special Challenge Examinations, Experiential Learning and other University-evaluated credit per 6-credit posting	260.00
Auditing fee	
— Regular (per course)*	\$997.00
— Senior citizens, Metropolitan Campus (per course)	265.00
— Florham Institute for Lifelong Learning, Florham Campus (per course)*	265.00
— Retired Persons Institute, Florham Campus**	265.00
Alumni plan (per course)*	574.00

\*Add \$10.00 registration fee per semester and any required course fees.

\*\*For one or more courses offered by Retired Persons Institute (RPI) classes. Fee waived if senior citizen fee of \$265.00 is paid for any regular University course.

All part-time undergraduate students in residence shall be assessed all fees that are assessed to other residential students in lieu of fees assessed on a nonresidential basis.

## Other Expenses

Estimated cost for each academic year for books, supplies and equipment varies from \$500.00 to \$800.00, depending upon the curriculum.

Medical technology students pay a fee of \$1,053.00 for the 32 college credits earned in the 12-month hospital practice period. The fee, which covers supervision of the program, is payable in the fall semester of the senior year.

## Tuition Reimbursed from Employers

Many corporations and business concerns provide tuition assistance to qualified employees. Students who are employed full time should inquire through their personnel department about their company's tuition aid program.

## Corporate Reimbursement Deferred Payment Plan

Students who receive corporate reimbursement may be eligible to defer their tuition payment until 45 days after the completion of the course. There is a 4 percent service charge for this accommodation.

## Credit Card Payments

The University has contracted with a third-party processor to provide this service, TouchNet. Students have the option to pay online.

Access information is available on the enrollment services website at <http://inside.fdu.edu>, or students may go directly to their WebAdvisor account.

The processor will charge a nonrefundable 2.85 percent convenience fee to the credit card user based on the amount of the payment for MasterCard, Visa, American Express and Discover. The convenience fee is for the use of the service and retained in full by the vendor not the University.



# Registration, Tuition and Billing Information

Students may also pay by ACH (electronic check) with no fee assessed. Students may access their account balance using the University's WebAdvisor system or if students need assistance with determining their student account balance, they may contact the Office of Enrollment Services by calling:

- 201-692-2213 for the Metropolitan Campus or
- 973-443-8600 for the Florham Campus.

Students must also have their FDU student ID numbers (seven digits) to access the system.

## Terms of Payment: Fall, Spring, Summer, Winter

The payment deadlines are established as August 15 for the fall semester and January 15 for the spring semester. By these dates, students must have paid their tuition, room and board and fee charges in full or have been enrolled into an approved payment plan. All students are expected to pay 100 percent summer and winter sessions charges at the time of registration. Payments may be made using American Express, Discover, Visa or MasterCard (see Credit Card Payments on page 24 and this page) or check made payable to Fairleigh Dickinson University and mailed to the Office of Enrollment Services on the student's home campus.

## Withdrawals/Refunds

Any alteration of a student's schedule must be made in writing, with the student's signature, to the Office of Enrollment Services. Forms to delete a course(s) or withdraw completely from the University are available in the campus Office of Enrollment Services. Only those alterations with an effective date prior to the first day of the semester will be accorded a 100 percent refund of tuition or cancellation of 100 percent of the tuition due to the University.

### Refund Schedule: Fall and Spring Semesters, 12-15 Weeks

- Prior to first day of semester\*  
*100% cancellation of tuition and course-associated fees.*
- During first week of semester\*  
*90% credit for tuition charges only.*
- During second week of semester\*  
*80% credit for tuition charges only.*
- During third week of semester\*  
*60% credit for tuition charges only.*
- During fourth week of semester\*  
*40% credit for tuition charges only.*  
*Grade of W recorded for course dropped.*
- During fifth week of semester\*  
*20% credit for tuition charges only.*  
*Grade of W recorded for course dropped.*
- After fifth week of semester\*  
NO REFUND OF TUITION AND FEES. Withdrawal grade based on University policy, recorded for deleted courses.
- During final two weeks of semester  
WITHDRAWALS FOR THE TERM ARE NO LONGER ACCEPTED.

### Refund Schedule for Modular Courses Three-, Four- and Five-week Modules

- Withdrawal prior to first day of class\*..... 100%
- Withdrawal during first week of class\*..... 50%
- Withdrawal thereafter\*  
NO REFUND DUE STUDENT.

### Six-, Seven-, Eight-, Nine- and 10-week Modules

- Withdrawal prior to first day of class\*..... 100%
- Withdrawal during first week of class\*..... 75%
- Withdrawal during second week of class\*..... 50%
- Withdrawal thereafter\*  
NO REFUND DUE STUDENT.

### Refund Schedule: Summer Six-, Nine- and 12-week Sessions

- Prior to first day of session\*  
*100% cancellation of tuition and course-associated fees.*
- During first week of session\*  
*75% credit of tuition only.*
- During second week of session\*  
*50% credit of tuition only.*
- After second week of session\*  
NO REFUND DUE STUDENT.

### Refund Schedule: Winter Three-week Sessions

- Prior to and during the first and second days of session\*  
*100% cancellation of tuition and course-associated fees.*
- After the second day of session\*  
NO REFUND DUE STUDENT.  
The summer/winter refund schedules do not apply to special or weekend programs. Refund schedules for these programs are available at the Office of Enrollment Services.

## Late Payment Charges

A late payment charge will be collected at the time any payment (full or partial) is applied to an outstanding balance according to the following schedule. Late payment charge is indicated in italics under the length of time indicated.

### Payment Made in Period

#### Fall Semester

- August 18–October 5  
*2% of payment*
- October 6–November 2  
*4% of payment*
- November 3–November 30  
*6% of payment*
- December 1–January 3  
*8% of payment*
- January 4–January 31  
*10% of payment*
- February 1 and thereafter  
*12% of payment*

\*Actual dates for fall and spring semesters are available upon request and posted in the enrollment services areas of each campus.

\*Actual dates for modular courses and summer and winter sessions are available upon request and posted in the enrollment services areas of each campus.

# Registration, Tuition and Billing Information

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## Spring Semester

January 18–February 28

2% of payment

March 1–31

4% of payment

April 1–30

6% of payment

May 1–31

8% of payment

June 1–30

10% of payment

July 1 and thereafter

12% of payment

## Summer Sessions

Summer payments are due at the time of registration. If payment is received after the end of the Summer Standard term, a 6% late fee will be applied to the payment made.

*However, if the student stops attending the University and the account is taken over by the collections department, a 12% penalty will be assessed to the unpaid balance.*

## Winter Session

Week 1–Week 3 of Session

*Students who pay their winter session charge after the third week of the term will be assessed a 6% late fee in the payment made.*

*However, if the student stops attending the University and the account is taken over by the collections department, a 12% penalty will be assessed to the unpaid balance.*

## Residence

The New Jersey campuses are the sites of traditional residence halls, as well as residence halls of contemporary architecture, featuring rooms grouped in suite arrangements with lounges and baths included.

The Student Union Building at the Metropolitan Campus and Frank Santoloci Student Center at the Florham Campus offer dining facilities that are open seven days a week. Dining is available via cash on your FDU student ID card.

The campuses are in residential communities located within commuting distance of New York City, thus making the cultural and urban advantages of Manhattan accessible.

## Residence Hall Payments

The residence hall deposit of \$350.00\* (nonrefundable) is deducted from residence hall charges that are payable once a year, prior to the beginning of the fall semester. No reduction is made for room or board during absences. In the case of withdrawals, residence refunds are made on a prorated basis, but there will be no refund after the fifth week of a semester. A damage deposit in escrow (for first-time residence hall students) of \$150.00\* is required and must be maintained. Upon leaving the residence halls, the student is refunded the deposit less any residence hall charges incurred during the final semester.

## Tuition and Fees — Wroxton College

During the academic year 2018–2019, an overall Wroxton College charge for full-time students is for 12–18 credits per semester and is equal to the full-time tuition charge at the students' home campus. It covers tuition, room and board, fees, meals, textbooks, trips, theater tickets and admissions to historic sites, museums, etc. Part-time undergraduate four-week summer sessions cost \$997.00\*( tuition per credit hour plus \$2,500.00\* for room, board and fees. The required \$50.00\* application fee (waived for Fairleigh Dickinson University students) is not included.

## Collection Fee

By registering for a course or courses, the student has entered into a contractual agreement with Fairleigh Dickinson University and has a financial obligation to pay the expenses incurred. In the event the student fails to honor his/her financial obligation, the student will also be responsible to pay all collection costs associated with the University's attempt to collect the past-due balance; collection costs can include a third-party collection fee of 30 percent of a past-due balance. The University reserves the right to report unpaid account information to any credit bureau.

\*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.

## Employee Tuition Grant Program

Employees or dependents of employees must apply for an Employee Tuition Grant (ETG) through the Office of University Human Resources prior to being registered. Upon approval, a voucher will be issued to the registrant to be presented along with the registration form at the Office of Enrollment Services/Registration. Employees are responsible for fees. The tuition credit will be applied to the employee's or dependent's account three to four weeks into the term by the Financial Aid Office.

## Graduate Tuition and Fees

Undergraduate students matriculated into a baccalaureate degree program who receive approval to take a graduate course to satisfy an undergraduate degree requirement pay undergraduate tuition for that course. Students matriculated into accelerated programs that lead to a baccalaureate and a master's or first professional degree, non-matriculated students, special students and matriculated undergraduate students taking courses in excess of degree requirements pay graduate tuition for graduate courses. Further information dealing with graduate tuition, fees and other charges are set forth in the University's *Graduate Studies Bulletin*.

## Student Affairs

College is a total educational experience. Learning takes place both in and outside the classroom and contributes to the growth and development of all students.

The division of student affairs provides students services and leadership programs and activities that enhance and supplement classroom experiences which enrich the student-centered environment at FDU for all students.

This catalog provides a brief overview of services, policies, procedures and regulations. For more detailed information, please see the *Student Handbook*, available on FDU's website ([www.fdu.edu](http://www.fdu.edu)).

### Dean of Students

The Dean of Students Office represents students' needs to the University administration and faculty and communicates needs from these groups to the students. The Dean of Students Office provides administrative leadership, supervision and coordination for the division of student affairs on the campus and includes campus ministries, health services, housing and campus life.

Through leadership, program development and policy development, the dean of students contributes to the overall intellectual, social and personal development of the students.

The office also oversees areas such as student leaves of absence.

The dean of students assists in carrying out the overall objectives of the student affairs division. Among the responsibilities of the dean are the overall coordination and preliminary investigation of disciplinary matters, new student orientation programs, commencement exercises, honor society induction programs, commuter student services and researching student needs. Students should view the Dean of Students Office as a viable source when faced with situations in need of resolution.

To contact the Dean of Students Office please call

**Florham Campus Metropolitan Campus**  
(973) 443-8935 (201) 692-2190

### Campus Life

#### Florham Campus

##### *Office of Campus Life*

The Office of Campus Life promotes student leadership opportunities and provides co-curricular experiences that encourage personal development and learning in a responsible, respectful and supportive community environment. The staff promotes a quality of life that responds to and supports the changing nature of students by empowering them to become leaders in a global-based society.

The Office of Campus Life is responsible for residential and housing services, student activities, Greek life, multicultural affairs, First Year Experience, community service, intramurals, leadership workshops and student clubs/organizations. The office is located in the Frank Santoloci Student Center.

The *Student Handbook*, which includes rules, regulations and helpful information necessary for campus life, is provided to all students at orientation and is also available on the FDU website ([www.fdu.edu](http://www.fdu.edu)).

#### Metropolitan Campus

##### *Office of Student Life*

The Office of Student Life/Student Union at the Metropolitan Campus promotes student leadership opportunities and provides co-curricular experiences that encourage personal development and learning in a responsible, respectful and supportive community environment. The staff promotes a quality of life that responds to and supports the changing nature of students by empowering them to become leaders in a global-based society.

The Office of Student Life is responsible for student engagement, the Student Union Board, Greek life, multicultural affairs, Student Union Building operations and 60 plus student clubs and organizations. The office is located in the Student Union Building of the Metropolitan Campus.

The *Student Handbook*, which includes rules, regulations and helpful information necessary for campus living, is available from the Dean of Students Office or on the FDU website ([www.fdu.edu](http://www.fdu.edu)).

### Student Organizations and Engagement

Through participation in student organizations and activities, students can apply ideas and theories learned in the classroom, share common interests and develop friendships with many people.

The Student Government Association (SGA) acts as the governing body of the students and is elected from and by the student body. A major function of the SGA is to establish a budget and apportion student activities' monies to the various activities, clubs and organizations. SGA is responsible for monitoring and reporting on the status of the budget. Student government maintains a liaison with faculty and administration and offers considered student opinion as an aid in developing curricular and co-curricular policies of the University.

Participation in well-planned social, recreational, educational, spiritual and governance activities is encouraged as an important part of each student's development. Social programs are diverse in their representation of campus culture and may include a variety of events, trips, outdoor activities, lectures, museum trips and athletics.

Membership in fraternities and sororities is important to many of our students. The University supports a wide variety of national Greek organizations that are reflective of our global campus community. The Office of Student/Campus Life oversees policy concerning new-member process. Greek organizations contribute to the positive social and educational environment on campus by providing students with the opportunity for community service and philanthropic activities.

Student clubs provide cultural, educational and social activities at each campus and are reflective of student interests. Student clubs may include groups focusing on accounting, advertising, art, athletics, biology, choral, debate, dramatics, the entertainment industry, finance, hotel and restaurant management, engineering, international relations, law, literary, marketing, mathematics, philosophy, photography, political activism, prelaw, psychology, radio, religion, social services and many others.

Professional associations with student chapters represented on campus include

# Student Affairs

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the American Chemical Society, Institute of Electrical and Electronic Engineers, Student National Education Association and National Society of Black Engineers.

The University holds memberships in national honorary and service organizations: Psi Chi for psychology, Pi Delta Epsilon for journalism, Omicron Delta Epsilon for economics, Alpha Delta Sigma for advertising, Theta Alpha Phi (Metropolitan Campus) and Alpha Psi Omega (Florham Campus) for drama, Beta Beta Beta for biology (Florham Campus), Beta Gamma Sigma for business, Epsilon Rho for nursing, Eta Kappa Nu for electrical engineering, Eta Sigma Delta for hospitality management, Omicron Pi chapter (Metropolitan Campus) for service, Phi Alpha Theta for history, Pi Mu Epsilon for mathematics and Pi Sigma Alpha for government, political science, public administration and international relations. There has been, for several years, a Fairleigh Dickinson University Club of Sigma Xi, the Scientific Research Society of North America, Phi Zeta Kappa and Phi Omega Epsilon.

Student publications include the two principal campus newspapers, issued under the titles of *The Equinox* (Metropolitan Campus) and *The Pillar* (Florham Campus); two literary magazines — *Knightscares* and *Iron Horse Creative Anthology*; and the *Journal of Psychology and Behavioral Science*.

The University encourages all students to become involved in co-curricular activities and programs. Specific eligibility requirements for participation will vary from organization to organization, but in general, all students must meet the following standards:

- At the Metropolitan Campus — at least a 2.00 cumulative grade point ratio (CGPR) is required for organization membership and a CGPR of 2.50 for executive board membership. To join a Greek organization, a CGPR of 2.50 is required, as well as enrollment on a full-time status (12 credits or more).

- At the Florham Campus — a CGPR of 2.00 to participate in any organization and a CGPR of 2.30 to hold a major office. Greek life members must have a 2.50 grade point ratio (GPR) and 12 FDU credits to join a Greek organization: a GPR of 2.15 to maintain general membership and a GPR of 2.50 to hold a major office. All members of the SGA must maintain a CGPR of 2.50.

These standards have been established to ensure that students maintain reasonable progress toward their academic goals, while permitting the opportunity to participate in the co-curricular activities and programs of the University.

## Career Development

The Career Development Center is dedicated to educating and empowering Fairleigh Dickinson University students through career advising, experiential learning and preparation.

### Career Advising

One-on-one career advising and assessment are offered to students to explore possible career paths and learn more about academic majors. Advisers help students discover their skills, abilities, interests and values so they can make more informed career decisions. As part of the process, workshops and individual appointments on résumé writing, job-search strategies, interviewing techniques and internships are available.

### Internships

Internships allow students to integrate academic study with supervised work experiences. This component helps students clarify goals, develop marketable skills, build their professional network and achieve a better understanding of the workplace. The career development team collaborates with faculty mentors to guide students through the process. The goal is for students to gain meaningful work experiences that will help them make connections beyond the classroom.

### Employer Connections

Throughout the year, employers from a variety of industries in business, education, government and nonprofit visit the Florham Campus, Metropolitan Campus and Vancouver Campus to recruit students for full-time, internship, part-time and volunteer opportunities.

Recruitment can be through informational presentations, on-campus recruitment, career fairs and networking events.

### Job Search

The Career Development Center team works with students individually and through classroom interactions to provide

job-search assistance and tools. Some tools are online so that students may access them at any time even when they're not on campus. Online resources include a jobs database (students and alumni can upload their résumés and apply for positions) networking resources and much more.

### Community Service

While many individuals become involved in volunteer activities for altruistic reasons, community service can be a valuable career-development avenue. Volunteering can help students explore interests in a potential career while developing critical skills. Career development also works with the Office of Financial Aid to develop community-service opportunities for students who are eligible for the Federal Work Study Program.

## Counseling and Psychological Services

A comprehensive, coordinated program of counseling and psychotherapy is available for the University community through the student counseling and psychological services (see this page and page 29) and through the Center for Psychological Services.

### Student Counseling and Psychological Services

Student counseling and psychological services complements the academic experience of the student body by facilitating healthy personal, social and intellectual development. Life circumstances, skills deficits and/or mental health problems may at times interfere with a student's ability to successfully achieve important academic and life goals. The office's unique environment and role allows it to help students identify their problems, manage their emotions, learn new problem-solving skills and successfully meet the academic and social challenges of University life. This is accomplished by offering counseling, diagnostic evaluation, psychotherapy, advocacy and mental health referrals; developmental, preventative and remedial counseling to University students; consultation, educational and training services to the University community; and experiential workshops on essential life skills (i.e., assertiveness, stress management, sleep hygiene).

A particular effort in outreach education focuses on substance use and abuse. Alcohol- and drug-use assessments, initial treatment and referrals for higher levels of care are provided by substance-abuse professionals.

The student counseling and psychological services staff offers Professional Development Workshops to the campus community on a variety of interest areas such as stress management, study skills, time management, drug abuse, test anxiety, loss and grief relationships, public speaking, etc. Student counseling and psychological services on the Metropolitan Campus also offers Meditation and Mindfulness Training Groups and Workshops.

Counseling and Psychological Services (CAPS) on the Florham Campus also offers holistic approaches to stress management such as Pet Therapy. Students are provided opportunities to destress and experience living more fully in the moment with certified therapy dogs.

Records are completely confidential and separate from University files. All services are completely free of charge to any registered FDU student. Only professional counselors and psychologists with master's and doctoral degrees provide services. There are no student trainees.

## Center for Psychological Services

The services provided by the Center for Psychological Services, located at the Metropolitan Campus, include psychological counseling, psychotherapy and psychodiagnostics. These services are available to the entire University community, including students, staff, faculty and their families, as well as to the general non-University community, regardless of residence. Services are provided by licensed psychologists and doctoral psychology students and are available on a sliding-scale basis.

Students should feel comfortable applying to the center. The clinic functions on a purely confidential basis, and records are not part of any University records. Also, for the student, fees can be reduced to a minimal level when indicated.

The center offers a full range of outpatient services for adolescent children and adults. Services include individual, group and family therapy; marital and premarital therapy; and various specialized behavior-modification programs. Psychological assessment also is available, including vocational testing.

## Student Health Services

Fairleigh Dickinson University student health services is a free and onsite outpatient health care facility serving all registered FDU students including students who have waived the University's United Health Care insurance. Student health services provides individual direct care, health counseling, patient education and programs.

All matriculated FDU students are required to submit medical and immunization records prior to beginning classes at FDU. Medical forms are available at [www.fdu.edu/shsmetro](http://www.fdu.edu/shsmetro) (Metropolitan Campus) and <http://view2.fdu.edu/florham-campus/health-services/requirements-and-forms/> (Florham Campus). Requirements vary depending on a student's major, age and location of classes, and it is the responsibility of the student to submit the required records.

Information about the University-sponsored Injury and Sickness Insurance Program is available for full-time undergraduate students at [www.firststudent.com/school\\_page/fairleigh-dickinson-university/home-fdu/](http://www.firststudent.com/school_page/fairleigh-dickinson-university/home-fdu/) where ID cards are available along with many other resources including contact information for any insurance-related matter.

The student health service center on each campus is staffed with experienced registered nurses and certified nurse practitioners and are open Monday to Friday, 9 a.m. to 5 p.m. for all student health issues. Staff members can be reached at (201) 692-2437 (Metropolitan Campus) and (973) 443-8535 (Florham Campus).

## Dining Services

The dining service programs are designed to provide students, faculty, staff and guests with a wide array of nutritionally balanced and appealing menus. Several meal plans are available as well as a special commuter-program package. All dining hall meals include salad bars, soups of the day, entrée varieties, vegetable choices, beverages and desserts on an "all-you-can-eat" basis. Premium entrées as well as festive holiday meals are presented several times a year. Each campus has a main dining hall and other convenient snack bar locations.

Dining hall hours of operation\* are:  
7:30 a.m.–9:30 p.m., Monday–

Thursday

7:30 a.m.–7:30 p.m., Friday

11:30 a.m.–7:30 p.m., Saturday and Sunday

A detailed breakdown of the meal-serving times is below:

### Breakfast

- Full Breakfast Menu: Monday–Friday, 7:30–10 a.m.

- Modified Breakfast Menu: Monday–Friday, 10–11:30 a.m.

### Brunch

- Saturday–Sunday: 11:30 a.m.–2 p.m.

- Modified Brunch Menu during changeover: 2:30–4:30 p.m.

### Lunch

- Full Lunch Menu: Monday–Friday, 11:30 a.m.–2:30 p.m.

- Modified Lunch Menu: Monday–Friday, 2:30–4:30 p.m.

### Dinner

- Monday–Thursday, 4:30–9:30 p.m.

- Friday–Sunday, 4:30–7:30 p.m.

Snack bar locations/hours of operation are posted. Sick trays and take-out lunches are available upon request.

## Campus Ministry

The objective of the campus ministry program is threefold: to advocate for the spiritual wellness of the University community; to coordinate formal and informal religious services for a diverse student, faculty, staff and administrative community; and to provide the general coordination of all religious activities on campus including, but not limited to, the education of the University community about various religious heritages.

At the Florham Campus, these objectives are met through participating religious student organizations on campus. Relationships also have been established with off-campus religious organizations in the area. An Interfaith Space is also available for students to utilize on campus and is located in the Monninger Center for Learning and Research.

At the Metropolitan Campus, as members of the division of student affairs, the chaplains are available for consultation. Working with colleagues in the division, the chaplains advocate the spiritual wellness of the University community.

\*Hours subject to change at discretion of University.

## Living on Campus

### Florham Campus

#### Residence Halls

*Living/Learning Communities:* The Florham Campus offers several learning communities as an option for first-year residential students. These programs, supported via partnerships between academic programs and the Office of Campus Life, allow students with similar academic interests or participating in other specialized programs, such as the University Honors Program, to live together in close-knit communities in suite-style housing. This environment provides additional study and social space so students can take full advantage of what these learning communities have to offer.

Students participating in one of the campus's learning communities also enjoy unique academic experiences that are an opportunity to interact with both faculty and peers inside and outside of the classroom. Residents in a Florham Campus learning community will take at least one course together their first semester. Dynamic faculty mentors and resident assistants also provide in-hall educational and social programming as well as special trips and events just for the members of the learning community.

*Park Avenue Residence Hall:* The Park Avenue Residence Hall contains 73 four-person apartments. Each apartment has a kitchen with an apartment-size stove and refrigerator, along with a furnished living room and two furnished bedrooms. Each bedroom has its own bathroom. All bedrooms are double occupancy. Apartments are climate controlled. Laundry and trash facilities are located on each floor near the elevators. The building has been designated for upperclassmen only.

*Rutherford Hall:* Named after the University's first campus, Rutherford Hall is a 300-bed residence hall which opened its doors in September 2003. Rutherford Hall houses upperclassmen in double bedrooms with a private bath. All rooms are climate controlled. Laundry, vending and trash facilities are located near the elevator on each floor. All floors have a common lounge.

*Twombly Halls:* Florence and Hamilton Twombly Halls are traditional residence halls that provide double- and triple-room occupancy and a common hall bathroom

facility. Both buildings are used to house first-year residents.

*The Village:* The Village is composed of nine buildings and primarily is used to house upperclassmen. These buildings consist of four-, six- and seven-person suites. All suites, with the exception of those in Wilder, Danforth and Vanderbilt Halls, have a common living room and bathroom and two or three bedrooms. Wilder, Danforth and Vanderbilt Hall suites have a bathroom and four bedrooms and have been designated primarily for first-year students. The Village residence halls are coed by suites.

### Metropolitan Campus

#### Housing and Residence Life

The Housing and Residence Life Office strives to provide and sustain a safe, comfortable, secure and nurturing living-and-learning environment for students that is conducive to their personal growth, supports their academic pursuits, encourages and fosters a sense of community, civic responsibility and cultivates an appreciation of diversity.

The Housing and Residence Life Office is responsible for the overall management, administration and program development of all University residential facilities with a capacity for approximately 1,000 residents. Living in the residence halls affords and encourages each resident the opportunity to participate in the shaping of their community.

*University Court:* This residence hall is comprised of 10 townhouse-style buildings. Each building has one to three same-gender sections on two floors of double-occupancy rooms with some single- and triple-occupancy rooms. There are shared bathrooms and a common area in each section. University Court is open to upperclassmen and graduate students. Special living options are located in this area: L.I.F.E. House (Living in a Free Environment), Global Scholars' Hall and Honor's House. University Court is open to graduate and undergraduate students. Freshmen admitted to L.I.F.E. House, the Global Scholars or Honors Scholars programs may choose to reside in this area in designated buildings that may include building sections with same-gender floors.

*Lindens:* The Lindens are comprised of eight buildings with three co-ed floors of same-gender suites, each consisting of

three double-occupancy rooms. Each suite has a shared bathroom and common area. Specific Linden buildings may be designated for upperclass and graduate students only. Academic year-round housing (August to May), when available, is provided in Linden 6 on a first-come, first-served basis. There are two kitchens in Linden 6. Building entry doors are staffed with a 24-hour hall security assistant when classes are in session. New freshmen are not eligible to request a single room.

*Northpointe:* A traditional corridor-style residence hall consisting of four co-ed floors housing approximately 290 residents in same-gender, double-occupancy rooms. Each bedroom has a private bathroom. A common lounge, laundry room and vending machines are located on each floor. A kitchenette is available on the third floor. ADA-compliant rooms are available. The Northpointe main entry door is staffed with a 24-hour hall security assistant when classes are in session.

All residence-hall rooms have cable television plus wired and wireless internet access.

For more information about the programs and services offered by housing and residence life, visit [www.fdu.edu/reslifemetro](http://www.fdu.edu/reslifemetro).

## Athletics

Athletics play a key role in the educational experience at Fairleigh Dickinson University and serve as an important building block for development of school spirit among students, faculty, staff, alumni and friends of the University.

The varsity athletics program offers opportunities for all students to enhance and refine their physical skills at the highest competitive level and to improve personal attributes such as discipline, leadership, teamwork and sportsmanship. In recognition of geographic factors, the varsity programs are divided between the Metropolitan Campus (Division I) and the Florham Campus (Division III). The athletics program also offers intramural and recreational opportunities to meet the needs and interests of the diverse campus population by providing a variety of activities in a relaxed environment.

## Metropolitan Campus

The Metropolitan Campus offers competition on the prestigious and highly competitive National Collegiate Athletic Association (NCAA) Division I level. The Knights sponsor the following eight men's teams: baseball, basketball, cross country, golf, soccer, tennis as well as indoor and outdoor track and field. The following 11 varsity sports are sponsored for women: basketball, bowling, cross country, fencing, golf, soccer, softball, tennis, indoor and outdoor track and field and volleyball. The University's commitment to women's athletics is reflected in the addition of women's soccer and softball teams in the 2000–2001 academic year, women's bowling in 2002–2003 and women's golf in 2006–2007 academic year. The addition of these new teams brings the Metropolitan Campus' total sports sponsorship to 19. Athletic scholarship assistance is offered in all sports to deserving student-athletes. Prospective student-athletes are encouraged to contact the athletics department for further information.

FDU is a member of the Northeast Conference (NEC) and has won the NEC Commissioner's Cup, emblematic of the overall success of the athletic program, on six occasions. In the fall of 2001, the men's soccer team returned to national prominence, advancing to the NCAA Division I Tournament, advancing to the Elite Eight, dropping a 3-3 triple overtime decision to eventual national champion, the University of North Carolina. The team has made a total of four trips to the NCAA Tournament since then, the last time in 2012 when the team advanced to the Sweet 16, where the team was again eliminated by the University of North Carolina in overtime 0-1. The women's bowling team has competed in the NCAA National Championships in nine out of 10 years the championship was contested, winning the national championship twice, in 2006 and 2010.

FDU's Metropolitan Campus also holds membership in the Eastern Collegiate Athletic Conference, the National Intercollegiate Women's Fencing Association and the Intercollegiate Amateur Athletic Association of America.

An important facet of the University's commitment to athletics is the George and Phyllis Rothman Center on the banks of the Hackensack River. The Rothman Center features facilities for the varsity teams

as well as cultural and social events. The center has the versatility to accommodate many different activities. Four basketball courts, three volleyball courts and two tennis courts, along with three racquetball courts, a weight room and a six-lane, 200-meter track, allow the University a wide variety of recreational activities.

A renovated fitness center, a state-of-the-art facility, features basketball courts, cardiovascular equipment, circuit-training equipment and a commuter lounge.

The intramural and recreation department offers activities for the entire campus community. Intramural football, softball, soccer, basketball, billiards and volleyball, along with recreation aerobics, are open for participation by all students, staff, faculty and administration.

Whether students are interested in recreation or intercollegiate competition, FDU is committed to providing them with opportunities to develop their bodies as the classroom develops their minds.

## Florham Campus

The University's Florham Campus holds membership in the NCAA (Division III), the Eastern Collegiate Athletic Conference, the Freedom Conference and the Middle Atlantic States Conference. Men's varsity teams compete intercollegiately in baseball, basketball, cross country, football, golf, lacrosse, soccer, swimming and tennis. Women athletes compete in basketball, cross country, field hockey, golf, lacrosse, soccer, softball, swimming, tennis and volleyball.

An important facet of the University's commitment to athletics is the Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center, an 82,000-square-foot complex which contains three full-size basketball courts; a performance court which seats 3,000; a suspended three-lane jogging track; weight-training, aerobic and dance facilities; a 25-yard competition swimming pool; two racquetball courts; and offices and locker rooms for student and intercollegiate use.

The Devils have added a new synthetic turf field to the outdoor facilities in 2005. The FieldTurf surface is on the cutting edge of playing-field technology and is used by several professional teams and major colleges. The field is able to accommodate football, field hockey, men's and women's soccer, as well as men's and

women's lacrosse. It is the primary home field for football, men's lacrosse, field hockey and women's lacrosse. New aluminum bleachers and a press box were included in the construction.

## International Student Services

The Office of International Student Services serves the international community at the University. The department offers a wide array of programs and services to more than 500 international students, research scholars and visiting professors from approximately 50 countries. Orientation programs are presented to facilitate the adjustment of international students to the American system of education and to offer insight into the cultural life of the United States. Cultural and social programs are offered for students to experience the surrounding New York/New Jersey metropolitan area.

Through immigration services, the department helps students maintain their status in compliance with immigration regulations and apply for the immigration benefits for which they are eligible.

Numerous student clubs and organizations cater to the international population. The International Student Association was initiated to develop and carry out — in a spirit of fraternity, equality and collaboration — all cultural expressions of these countries represented.

## Student Regulations

The University reserves the right in its sole judgment to make changes of any nature in the University's academic program, courses, schedule or calendar whenever in its sole judgment it is deemed desirable to do so. The University also reserves the right to shift colleges, schools, institutes, programs, departments or courses from one to another of its campuses. The foregoing changes may include, without limitation, the elimination of colleges, schools, institutes, programs, departments or courses; the modification of the content of any of the foregoing; the rescheduling of classes, with or without extending the announced academic term; and the cancellation of scheduled classes or other academic activities. If such changes are deemed desirable, the University may

require or afford alternatives for scheduled classes or other academic activities and will give adequate notification of any change such as is reasonably practical under the circumstances.

Students who accept enrollment at the University must abide by the rules and regulations promulgated from time to time by the University including, but not limited to, those rules and regulations in this bulletin. Students are expected to live up to the highest standards of academic integrity. Fairleigh Dickinson University will not tolerate academic dishonesty in any form. Students should also conduct themselves with decorum and responsibility and comply with the requirements of the applicable Code of Student Rights, Responsibilities and Conduct in the *Student Handbook* and on the University's website. The University reserves the right to dismiss or suspend students who fail to comply with the foregoing.

The University may suspend classes if they cannot be held for reasons beyond its reasonable control, such as fire, destruction of buildings, civil disturbances, work stoppage, labor dispute, strike, lock out (and whether or not in any of the last four cases it is within the University's power to concede to or meet the demands of its faculty or other employees), wars or governmental actions. If such suspension lasts for an extended period of time and the University does not schedule appropriate makeup classes, a partial refund of tuition will be made as the University deems appropriate under the circumstances. Payment of tuition or attendance at any classes shall constitute a student's acceptance of the University's rights as set forth in this and the two preceding paragraphs.

## **Policy on Prohibited Discrimination, Harassment and Related Misconduct**

The University is committed to maintaining a fair and respectful environment for living, working and studying. To that end, and in accordance with federal and state law, this University applies to the conduct of, and protection of, University faculty, staff, administrators, supervisors, employees, students, volunteers, guests, patrons, independent contractors or clients and visitors of the University and prohibits any of the foregoing from harassing and/or discriminating against any other member of the University community because of that person's sex, race, creed, color, religion, handicap/disability, gender, gender expression, gender identity, genetic information, age, marital status, sexual orientation, veteran status, pregnancy status, ancestry or national origin. Incidents of harassment and discrimination will be met with appropriate disciplinary action, up to and including dismissal from the University.

## **Nondiscrimination and Equal Opportunity**

The University is committed to maintaining a discrimination-free academic environment for its students and employees. No one will be denied employment or admission to the University on the basis of sex, race, creed, color, religion, handicap/disability, gender, gender expression, gender identity, genetic information, age, marital status, sexual orientation, veteran status, pregnancy status, ancestry or national origin. The University does not discriminate on the basis of any of the aforementioned protected classes in the recruitment and admission of students, the recruitment and employment of faculty and staff and the operation of any of its programs and activities as specified by the federal or state law and regulations. Every member of the University community is expected to uphold this policy as a matter of mutual respect and fundamental fair-

ness in human relations. Every student of this institution has a responsibility to conduct himself/herself in accordance with this policy as a condition of enrollment. Further, every University employee has a responsibility to conduct himself/herself in accordance with this policy as a condition of employment.

## **Reporting of Complaint**

Any University student, employee, volunteer, guest, patron, independent contractor, client or visitor who feels subjected to harassment or discrimination in any manner, including complaints about the conduct of administrators, supervisors, employees, staff, faculty, volunteers, students and visitors, should immediately report the matter to Public Safety [(201) 692-2222 or (973) 443-8888], the University's Title IX coordinator [(201) 692-2706] and/or one of the deputy Title IX coordinators [(973) 443-8574 or (201) 692-2190]. Any member of the University community who feels at risk of imminent harm should call law enforcement at 911.

Please refer to the University's "Policy on Prohibited Discrimination, Harassment and Related Misconduct" for more information regarding support services that may be available to reporting parties as well as the adjudication process. The policy may be found at <http://fdu.edu/hr/nondiscriminationandantiharassmentpolicy.pdf>.



## Family Educational Rights and Privacy Act (FERPA)

As a recipient of federal educational funds, Fairleigh Dickinson University is bound by the requirements of FERPA. Subject to specified exceptions set forth by FERPA, the University is required to have a student's written consent before disclosing personally identifiable information from a student's educational records to third parties. An educational record is information directly related to a student, which is maintained by the University or any individual on behalf of the University, in any recorded form. Grades, evaluations, financial records, class-attendance records and financial-aid records are common examples of educational records.

FERPA gives students a right to review and copy their educational records and to challenge any educational record for being inaccurate or misleading. The University must provide a hearing to any student who wishes to challenge an educational record on either ground. If the University grants the student's challenge, it must amend the record in question. If the University does not grant the student's challenge, it must nevertheless allow the student to append a statement to the disputed record. The University maintains a log which identifies persons who have accessed a student's record. Students have a right to review log.

There are a number of exceptions to FERPA's prohibition against nonconsensual disclosure of personally identifiable information from education records. Under these exceptions, the University is permitted to disclose personally identifiable information from education records without consent, though they are not required to do so. Among these exceptions are the University's right to disclose personally identifiable information to: parents of students who are listed as dependents on their parents' federal income tax returns; appropriate third parties in the event of a health or safety emergency; parents of students under 21 years of age with regard to the student's violation of any federal, state or local law or of any rule of policy of the institution governing the use or possession of alcohol or a controlled substance; and final results of a disciplinary hearing to victims of a crime of violence or a non-forcible sex offense.

FERPA allows the University to disclose students' Directory Information without

consent. University students will be provided an opportunity at the start of each academic year to request that the University not disclose their Directory Information.

## Clery Act

In accordance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act or Clery Act, FDU's Department of Public Safety reports information relating to crime statistics and security measures to the appropriate government agencies. These statistics are also open for public inspection. Current and prospective students, University employees and job applicants are also advised of the availability of these reports. The University will provide a paper copy of the report upon request made to either Public Safety Office. The University's annual reports may be viewed at the following link: <https://view2.fdu.edu/about-fdu/facts-about-fdu/clery-act-statistics>.

# Academic Support and Research

Intellectual life at the University is nurtured beyond as well as within the classroom. Each campus of Fairleigh Dickinson has its own libraries, computer centers and research facilities, which foster the intellectual growth of students outside the classroom.

## Libraries

The University maintains libraries at both its New Jersey campuses, the Florham Campus in Madison and the Metropolitan Campus in Teaneck. The University also maintains a library at its Wroxtton College campus in England that supports the academic programs offered there. The Vancouver Campus provides a reference and circulating collection that supplements the FDU Online Library.

The Metropolitan Campus libraries include the Frank Giovatto Library in Teaneck and the Business Research Library (Dickinson Hall) in Hackensack. The Giovatto Library collection contains approximately 154,000 volumes. It also subscribes to approximately 430 periodical titles. The Giovatto Library also offers a collection (1,970) of both educational and popular DVDs and audiobooks on CD. Special collections include the Gehl collection of psychoanalytic materials, the Columbia film archives and selected presidential papers on microfilm.

A Career Corner and a Research and Writing collection have been created to support student research, writing and career research. Giovatto Library offers an Art Gallery for student, faculty and staff exhibits, as well as a Recital Program, using the library's Boston by Steinway piano. The Library Makerspace offers two 3D printers and a digitizer for student use. A Library Café, Relaxation Zone and video game stations are available during library hours.

The Special Collections Suite, located on the ground floor of the Giovatto Library, includes the Sammartino Room, the J. Michael Adams Room, the Faculty Display Case and the Magister Room. The Sammartino Room showcases a portion of the heritage of the University. The collection includes monographs by the founder and first president Peter Sammartino. It also contains monographs published by FDU Press, FDU's *The Literary Review*, doctoral dissertations, yearbooks, faculty

publications and FDU memorabilia. The J. Michael Adams Room, located adjacent to the Sammartino Room, is intended to house books from the collection of J. Michael Adams, along with photos and memorabilia of his years as president of Fairleigh Dickinson University and of the International Association of University Presidents (IAUP). This room also houses the IAUP Archive. While dedicated to the memory of J. Michael Adams, the space is open and available to students and other library users, as are all the rooms in the Special Collections Suite, Monday–Friday, 9 a.m.–5 p.m., and by appointment. The books from the J. Michael Adams collection may also be borrowed by members of the FDU community. The room may also be reserved for small group meetings. The space has wireless connectivity, along with a desktop computer, for student convenience.

One of the campus's most prominent works of art is "Epic of America." It hangs on the face of the Giovatto Library. The casting was created by the famous artist William Zorach. He described the symbolism as "The Indians that possessed this land ... left us a rich heritage — We are all sun worshippers, loving life and the great forces of creation, renewed each day and yet never the same." The flags represent all the flags that "have flown over this country until we were all united under one flag." The woman represents America itself, beautiful and full of fertile promise. And the man and the child represent "the spirit of enterprise and education, leading the new generation to carry on the work of today into the new visions of tomorrow — the new age flowing into life."

At the Florham Campus, the library is part of the John and Joan Monninger Center for Learning and Research. The older portion of the library building occupies the site of the greenhouses of the former Vanderbilt-Twombly estate. The large event space at the front of the building, the Hassan Orangerie, once held tropical plants, and is all that remains of the original greenhouse-orangerie complex. The Fred Hassan Orangerie, designed by McKim, Mead and White, faces Hennessy Hall across a wide expanse of lawn, which is part of the larger Frederick Law Olmsted-designed grounds.

Developed at the Florham Campus location is a library collection of more than 145,000 book volumes, some 150 current newspapers and periodicals plus more than 1,500 backfiles. It also holds more than 2,500 DVDs and videos for classroom and individual use.

The Florham Campus library contains a computer lab with 18 workstations and black and white and color printing. There are two additional workstations within the Reference Room which have graphic design software. The Reference Room is also used as a display space for exhibits showcasing the library's circulating and special collections.

The noncirculating print collections in the Monninger Center include the Douglas Lloyd Kahn Collection on the History of Photography and Film with some 3,500 plus titles; and the smaller, noncirculating collections of the Kushen Family Collection in memory of Betty Kushen, Ph.D., including special editions of 19th- and 20th-century British women writers; Literature by Black Authors, in particular African-American writers in first editions; the Twombly estate collection; as well as the archives of Fairleigh Dickinson University founder Peter Sammartino; the New York Cultural Center; and those of the Florham Campus.

Extensive reference collections are available at all campus libraries for consultation and research, with the library serving its campus as a center for education and learning. At each facility, professional librarians offer individual guidance as well as classroom instruction in library use and research methodology.

Students and faculty on both campuses have easy access to all FDU library materials plus those of the College of Saint Elizabeth (Morristown, N.J.) through the online catalog CoolCAT. Intercampus loan requests can be delivered to the appropriate campus within a day or two. Users needing special library materials not owned by FDU can access library holdings throughout the country with interlibrary loans. These can be requested either online or in person at any campus library.

The FDU Online Library provides access to more than 200 subscription databases containing more than 250,000 full-text journals, more than 160,000 e-books

and three streaming video collections. Most resources within the FDU Online Library are available 24/7, both on campus and remotely.

The FDU library digital collection is available at [www.fdu.edu/digitallibrary](http://www.fdu.edu/digitallibrary). This collection consists of unique items from the University's archives and from distinctive collections developed in collaboration with non-library partners, related to both the history of northern New Jersey and the University. Materials include student newspapers, master's theses, historical photographs and documents, digital artifacts, maps and podcasts. This collection is continually growing as the University works to preserve its heritage.

For further information call:

Monninger Center (Florham Campus) at (973) 443-8516

Giovatto Library (Metropolitan Campus) at (201) 692-2278

Business Research Library (Hackensack) at (201) 692-2608 or on the web at <http://library.fdu.edu>

## Research and Creative Activity

The variety, scope and incidence of research and related scholarly activity within the University continue to increase. Usually, research carried out by the faculty combines the inquiry for new knowledge with the education of students at the graduate and undergraduate levels. Great emphasis is placed on research and related activities, independent study and inquiry, action projects and scholarly work as means of developing abilities.

Faculty research grants support research-related activities and travel. Government and industry, in addition to the University, support and sponsor University research activities.

Research, creative activity and educational development are found across all the colleges of the University. At the Maxwell Becton College of Arts and Sciences, faculty research is designed to involve students, who can earn credit in research course work for their academic achievements. In the department of psychology and counseling, students have worked alongside faculty to publish and present collaborative research in experimental, personnel and industrial psychology; organizational behavior; and counseling. In chemistry and biology, joint faculty/student research projects are frequent. In addition, many

students majoring in chemistry and biochemistry are able to work one-on-one with chemistry faculty on their research projects, which include topics such as childhood autism, molecular modeling, natural products synthesis, materials chemistry and nanoscience. Students engaging in research partnerships are given the opportunity to network with other chemists while presenting their research findings at local, regional and national chemistry meetings.

Faculty in literature and communication studies have published on such diverse topics as revenge in Shakespeare, Samuel Beckett and the culture of advertising. Short stories and poems by creative writing faculty have appeared internationally and in cyberspace and have been recognized with a National Book Award nomination. Members of the School of the Arts faculty have exhibited and performed in diverse media in galleries and performance spaces throughout the United States and the world. Students in film have worked alongside faculty and professional actors to contribute to a feature film that was successfully placed into distribution. Computer science faculty have made contributions to software design. Faculty in the department of social sciences and history are widely published and internationally recognized. The modern languages faculty lead the way in the creation of short-term, study-abroad programs integrated into the curriculum.

The School of Pharmacy and Health Sciences engages in research across the spectrum of patient care, social and administrative sciences, health outcomes and pharmaceutical science. Faculty engage students in projects on topics ranging from health and wellness, delivery of care, study design and outcome evaluation and the role of the pharmacist in accountable care organization administration and health care delivery. Additionally, basic science research on drug delivery, evaluation and analysis of sterile compounds and other sterile techniques also take place within the school's research facilities.

University College: Arts • Sciences • Professional Studies prides itself on its increased emphasis on research. The Metropolitan Campus houses its clinical psychology doctoral program, where students and faculty study seasonal affective depression, eating disorders, personality development and psychological testing. Faculty in the School of the Humanities focus on modern

and 19th-century English and American writers. Noteworthy was a widely praised biography of Nancy Cunard. The Peter Sammartino School of Education, also part of University College, is funded by local and state agencies and the Office of Education for a variety of innovative programs. Research is concentrated in the areas of learning disabilities and technology.

The Henry P. Becton School of Nursing and Allied Health Doctor of Nursing Practitioners (D.N.P.) Program emphasizes evidence-based research and D.N.P. students are required to engage in research for their D.N.P. degrees. Faculty in the School of Nursing have published in peer-reviewed journals.

The faculty of the School of Criminal Justice, Political Science and International Studies offers one of the few undergraduate international studies degrees supported by its foreign language faculty. Faculty in the school are active in research in the areas of violence and victimization; andragogical instructional methodologies within the construct of police training and education; and the use of neurolinguistic programming in the treatment of substance abuse.

Faculty in the School of Art and Media Studies have widely published scholarship coming from the school, including scholarly articles and texts in theory, biography and film studies.

The faculty of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering conduct research in such diverse areas as digital and adaptive signal processing, digital image processing, wireless and digital communications, artificial intelligence, machine learning, machine vision and applications, neural networks, pattern recognition, spectroscopic data analysis, big data analytics, biometric identification systems, real-time systems, automatic control systems, remote sensing of environment, water resource management, agricultural food security, remote wind sensing, software engineering, software configuration management, software quality assurance, software management, software reuse, multimedia communications, network protocols, cybersecurity, steganography, steganography, management information systems, electronic commerce, abstract algebra, computational neuroscience, biomathematical science and bridge abutments.

Faculty in the School of Natural Sciences conduct research on topics that

# Academic Support and Research

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range from the sensing of chemicals to proteins to cells to plants and invertebrates. This work is funded both from within and outside the University.

Faculty in the Silberman College of Business maintain an active stream of research in a wide variety of areas related to global financing, marketing, ethics, health care and life sciences, international business, entrepreneurship, mergers and acquisitions, new ventures, innovation, options theory, decision-making, pricing issues, forensic science, sustainability, women and minority entrepreneurship, workplace and life balance, among others. The Silberman College of Business sponsors a quarterly consumer survey conducted by Fairleigh Dickinson University Poll (FDU Poll) that addresses topical business and economic concerns. Students have the opportunity to work with faculty members on their research projects.

Finally, research also is an integral component of activities at Anthony J. Petrocelli College of Continuing Studies. Faculty pursue scholarly inquiry in areas that include 19th-century European history, robotics and applied computer simulations, the history of The Bronx, medieval studies, classical philosophy, ethical issues in the late 20th and 21st centuries, sustainability and women's studies.

The School of Public and Global Affairs includes the FDU Poll. Established in 2000, this vigorous survey research group has undertaken thousands of measurements in public opinion and attitudes, issuing 25–40 press releases and garnering tens of thousands of citations. The survey research group also regularly presents its findings at academic conferences and publishes them in academic journals. Its most cited work includes the effect of cable news watching in informing the public, the hesitation of men to vote for a woman candidate and public attitudes toward expanded casino and sports betting.

The FDU Poll receives an “A” rating from statistician Nate Silver’s FiveThirtyEight blog. The ratings measure both accuracy and bias for all major polling services in the United States, providing an update to similar research the poll watchers conducted in 2014. FDU’s “A” rating puts it in the top 15 of the more than 380 polling institutes reviewed and graded from A+ through F. The FDU Poll was found to have a 94 percent accuracy rate for predicting election results, and is one

of only three A-rated polling institutes with zero bias to their rankings.

The School of Administrative Science is conducting research in the fields of diplomacy, leadership, computer security and forensics through the use of Petrocelli College’s Cyber Crime Training Laboratory on the Metropolitan Campus, homeland security, emergency management, school safety, student services and sports administration.

## Fairleigh Dickinson University Press and *The Literary Review*

Fairleigh Dickinson University Press has published scholarly books for the academic market since 1967. It produces between 30 to 40 books each year in a variety of fields, with special emphasis on history, literature, the arts and the social sciences. The press publishes several book series, including *American History and Culture*, *Italian Studies*, *Communication Studies*, *Willa Cather Studies*, *Mormon Studies*, *Shakespeare and the Stage* and *Law, Culture, and the Humanities*. It counts many award-winners among its publications, which are held in thousands of libraries around the world. Manuscripts that are considered for publication are subject to peer review by specialist scholars and selected for publication by an Editorial Committee composed of University faculty and an advisory board of associated scholars. The website for Fairleigh Dickinson University Press is [www.fdu.edu/fdupress](http://www.fdu.edu/fdupress).

*The Literary Review (TLR)* is an international quarterly journal of contemporary writing founded in 1957. As one of the country’s longest continually running university-affiliated quarterly, *TLR* is established in the international literary community, demonstrating FDU’s commitment to the arts. Four times a year it publishes a new issue of the highest-quality poetry and prose and is recognized for its style, bold approach, loyalty to its contributors — whether they are emerging or award-winning marquee writers, and a dedication to publishing new literature from around the world. Recent issues include *Chemistry: All Poetry in 2018*; *Current Events: 60th Anniversary*, *Physics: All Fiction*, *Uncle: The Battle Isn’t Over*, *I Live Here: Stand Your Ground*, and *Heaven: Is Some Place in 2017*. The journal has won recognition for its work and reinforces the FDU profile

through inclusion in best-of anthologies and online aggregators, by being invited to speak on panels at conferences and festivals, such as the Brooklyn Book Festival in September and Association of Writers and Writing Programs Annual Conference Marketplace every spring. *TLR* also maintains relationships with high-profile literary organizations such as PEN American Center, the American Literary Translators Association and Council for Literary Magazines and Small Marketplaces (CLMP). Members train and mentor more than 25 undergraduate and graduate students a year through internships in literary publishing and collaborate extensively with the creative writing department and M.F.A. program of FDU.

## Computer Facilities

Almost all students at the University make use of one of the campus computer centers, whether their majors are in the sciences, engineering, business, education or liberal arts, graduate or undergraduate. The computers available feature a wide range of application software and programming languages for students in all disciplines. From the time a student is admitted, he or she may obtain and use a University NetID account to obtain email, network storage and printing capabilities.

**Florham Campus:** The technology client services and support teams (formerly the computing services department) at the Florham Campus manage microcomputer labs in several buildings. The Dreyfuss Building has four general-purpose computer labs. There are also state-of-the-art computer graphics, animation and video-editing labs, which include high-resolution computer graphics equipment for the production of professional-quality, computer-generated art, 2D/3D animation, digital video and multimedia presentations. There are special-purpose computer lab facilities across the campus to support mathematics, computer science, physics, biology, chemistry, visual and performing arts and others. There are general and business labs in the John and Joan Monninger Center for Learning and Research and the Academic Support Center.

**Metropolitan Campus:** The Metropolitan Campus technology client services and support teams (formerly the computing services department) manage three general-purpose computer labs in

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University Hall, along with a state-of-the-art graphics lab used for the production of high-quality graphics, 2D/3D animation, digital video and multimedia presentations, and three general-purpose computer labs in Dickinson Hall. There are special-purpose computer lab facilities across the campus to support mathematics, computer science, physics, biology, chemistry, visual and performing arts, psychology, nursing, video editing, engineering, athletics and others. There are general and business labs in the Frank Giovatto Library and the Academic Support Center.

Each computer lab is equipped with Lenovo ThinkCentre All-in-One desktop computers replete with Intel CORE™ i7 processors, LCD flat-panel display and combination CD-RW/DVD-RW drives for file storage and access to optical-based materials. All of the computers are connected to the University-wide network for file and print sharing and access to the internet. All lab computers are running the Microsoft Windows 10 operating system with a large suite of general-purpose software, such as Microsoft Office Professional, and discipline-specific software to support academic computing. Computer labs that are also used as classrooms are equipped with high-resolution/high-intensity computer-projection systems and/or high-definition, flat-panel display technology.

To keep pace with changes in technology and increasing demands for memory and processing power, campus computing center computers are acquired on a technology refresh program.

FDU has a laptop loaner program that enables students to “borrow” a laptop computer for use within the campus libraries. The loaner laptops are imaged with many software applications and can access the internet via the University wireless network. Additionally, the University’s automated library system provides anyone the ability to search the holdings of both campuses from any location using the internet and NetID credentials for authentication.

University systems and security operates and maintains the University data centers, enterprise systems and networking infrastructure, which are used by all, regardless of campus or location. These systems support both the academic and administrative needs of the University. Services include a system for University-

run web pages, faculty and staff personal web pages, a library automation system, an email system and other platforms for advancing the needs of the academic programs. These systems can be accessed using the internet.

High-speed, fiber-optic networking connects most buildings at the University to FDU’s computer network. This facilitates communications among the students and faculty and provides easy access to all of the software and computer resources. Almost all of the academic buildings, including the libraries, have wireless LAN capabilities. This feature allows students with a laptop and a standard 802.11b/g/n/ac wireless LAN card to access the campus network, untethered, from any of those buildings. Every student has access to wired and wireless connectivity in his/her room to connect his/her computer device to the University network. These connections provide students with high-speed access to network resources and the internet. Wireless connectivity is also available in most of the common areas within residence halls.

## UTAC

The Fairleigh Dickinson University Technical Assistance Center (UTAC) provides around-the-clock technical support services for more than 200 commercial off-the-shelf software applications, Google for Education, Microsoft and Macintosh (OS 8.x and higher) operating systems, all common browsers, Webcampus/BlackBoard, virtually all network connectivity options and password-reset support. This 24-hour help-desk support is available to all students from the time they are officially admitted to the University.

For more information call the Office of Information Resources and Technology at (973) 443-8689.

## Acceptable Use Policies for Computer Usage

The University computing resources support the instructional, research and administrative activities of the University. Users of these facilities may have access to University resources, sensitive data and external networks. Consequently, it is imperative for all users to behave in a responsible, ethical and legal manner. Students are responsible for complying with relevant acceptable-use policies. Failure to comply with these policies may result in charges of violation of the

Code of Student Rights, Responsibilities and Conduct and possible state and federal action.

The Fairleigh Dickinson University Acceptable Use Policy for Computer Usage and the Resident Network Acceptable Use Policy may be obtained from the University Information Systems web site at the following URL: [http://isweb.fdu.edu/policies/oirt\\_policy.html](http://isweb.fdu.edu/policies/oirt_policy.html).

## Academic Advisement

The Academic Advisement Center (Florham Campus), Center for Business Students (Florham Campus) and the Academic Advisement Center (Metropolitan Campus) are open year-round with extended hours for peak registration. The Academic Advisement Center is a campus-based academic resource for all undergraduate students. Professional advisers are available to assist students in the development of meaningful educational plans, to answer questions regarding University policies and procedures, as well as to help students understand curriculum requirements of their chosen majors or possible new majors.

The offices offer an Academic Achievement Program for students placed on academic probation.

To speak to an adviser at the **Metropolitan Campus** call (201) 692-2339. At the **Florham Campus**, students must speak to the College adviser appropriate to their major. For the Silberman College of Business Center for Business Students, see the paragraph on the next page. For the Maxwell Becton College of Arts and Sciences, see the paragraphs below.

In the **Maxwell Becton College of Arts and Sciences**, advisers strive to provide the most effective academic advising possible for students to experience the maximum educational benefits available to them during their stay at Fairleigh Dickinson University.

All freshmen are provided a comprehensive, individualized advising program by professional staff in the Becton College Academic Advising Center throughout their first year. Basic arts and science students are advised in the Center until a major is declared. An academic intervention program reaches out to any of these students placed on academic probation.

Students in their sophomore through senior years with declared majors are advised by faculty advisers in the major department.

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The Becton College Academic Advising Center offers assistance to all Becton College students with changing or declaring majors, minors, off-campus authorization and interpretation of University academic policies and procedures. Support is available to upperclassmen in all majors within Becton College when faculty advisers are not available.

The Becton College Academic Advising Center is open year-round with extended hours for priority registration and other peak registration periods.

To speak with an adviser in the Becton College Academic Advising Center call (973) 443-8753. To speak with a faculty adviser within Becton College, contact the major department.

To speak to an adviser at the Metropolitan Campus, call the Academic Advising Center at (201) 692-2339. **Silberman College of Business** (SCB) students on the Metropolitan Campus may also call the Office of Undergraduate Student Services at (201) 692-2155 for more specific advisement associated with courses within the business curriculum.

Students in the QUEST (Teacher Preparation) Program may call (201) 692-2862 for more specific advisement associated within the QUEST curriculum.

At the Florham Campus, students must speak to the college adviser appropriate to their major. Those within the Silberman College of Business (SCB) should contact the Center for Business Students at (973) 443-8800. The Center is staffed with professional advisers who work with the students in developing a program of study that leverages the various curricular opportunities offered by the college and fits the career interests of the students. A variety of academic intervention programs are also offered at the Florham Campus to SCB students placed on academic probation. The Center for Business Students also works closely with the Career Development Office to enable students to take advantage of a variety of internship opportunities as well as help them identify suitable career opportunities.

**To find additional information about both campuses' academic advisement,** visit the websites at [www.fdu.edu/cass](http://www.fdu.edu/cass) for all colleges at the Metropolitan Campus; <http://view2.fdu.edu/academics/silberman-college/undergraduate/center-for-business-students-advising-office/> for the Silberman College of Business at the

Florham Campus; and at [www.fdu.edu/studentsvcs/fmaac.html](http://www.fdu.edu/studentsvcs/fmaac.html) for the Maxwell Becton College of Arts and Sciences and Anthony J. Petrocelli College of Continuing Studies at the Florham Campus.

## Academic Support and Resource Centers

The Academic Support Center at the Florham Campus and the Academic Resource Center at the Metropolitan Campus provide academic support services *free of charge* to all FDU students. This includes adult learners, honor students, students with learning disabilities, international students and graduate students. Individualized weekly tutoring is available in writing, mathematics, business, arts and sciences and the University curriculum. The departments also offer individualized assistance in academic study skills. Students enrolled in modern language classes attend small group or individual tutoring sessions. Discussion groups, review sessions and workshops are tailored for students in specific courses or areas of study as needed.

The tutoring staff is comprised of professional and peer tutors chosen for academic excellence in their major fields. Separate computer facilities are maintained at each center for instructional purposes.

In addition to tutoring, the centers are responsible for testing and placing students in appropriate courses. Students who test into developmental courses are given supplemental help in reading, English and mathematics at weekly labs.

To make tutoring appointments at the Florham Campus, call (973) 443-8538 or schedule online at <http://fdu.mywconline.com>. For the Metropolitan Campus, go to Robison Hall, Room 502, to fill out an application. For further information, contact the Metropolitan Campus center at (201) 692-2076 or go to [www.fdu.edu/cass](http://www.fdu.edu/cass).

## Metro Writing Studio

One of the top academic priorities of the Metropolitan Campus of Fairleigh Dickinson University is to graduate students who are competent and confident writers. The Metro Writing Studio supports this mission. Located on the second floor of the Giovatto Library, the Metro Writing Studio provides writing support of every kind free of charge for all students, faculty and staff of Fairleigh Dickinson University.

The studio is staffed with professionally credentialed tutors whose aim is to produce better writers, not only better writing, and who understand that good writing is a practice produced over time in developmental phases. Individual, one-on-one tutoring is available primarily on a drop-in basis; appointments are also available.

Additionally, the studio hosts writing-related workshops such as Introduction to APA Format, Writing the Undergraduate Thesis, Writing Technical Lab Reports and Basic Grammar. These free workshops are for students, faculty and staff. The studio also hosts topical "Conversational Fridays" designed to help students for whom English is not a first language practice their English in a casual atmosphere.

The studio partners with eTutoring.org, a consortium of online tutors available in many subjects such as writing, anatomy and physiology, biology, calculus, chemistry, mathematics, information literacy, research methods and statistics. Undergraduate students can log in and receive support through several delivery methods: eQuestions, synchronous eChat and the asynchronous Writing Lab.

To learn more about all of the services the Metro Writing Studio provides, visit it on the second floor of the Giovatto Library, call (201) 692-2166 or go to <http://view2.fdu.edu/academics/university-college/school-of-humanities/metro-writing-studio/>.

## Students with Disabilities

Fairleigh Dickinson University makes support services available to students with documented disabilities. Students with documented physical, learning or psychological disabilities may request reasonable modifications, accommodations, auxiliary aids or services which will allow them to participate fully in programs and activities. Students with documented disabilities may request support services by contacting the campus ADA/504 coordinator. The ADA/504 coordinator for the Florham Campus is Darshan Shah, (973) 443-8079. The ADA/504 coordinator for the Metropolitan Campus is the deputy campus executive, S. Craig Mourton, (201) 692-2477.

Also see **COMPASS** page 284 and **Regional Center for Learning Disabilities** pages 283–284.

## Academic Regulations

### Academic Integrity Policy

Students enrolled at Fairleigh Dickinson University are expected to maintain the highest standards of academic honesty. Students have the responsibility to each other to make known the existence of academic dishonesty to their course instructor and then, if necessary, the department chair or the academic dean of their College. Course instructors have the added responsibility to state in advance in their syllabi any special policies and procedures concerning examinations and other academic exercises specific to their courses. Students should request this information if not distributed by the instructor.

Academic dishonesty includes, but is not necessarily limited to, the following:

1. *Cheating* — Giving or receiving unauthorized assistance in any academic exercise or examination. Using or attempting to use any unauthorized materials, information or study aids in an examination or academic exercise.
2. *Plagiarism* — Representing the ideas or language of others as one's own. A more complete description is listed below in the section titled "Plagiarism Described."
3. *Falsification* — Falsifying or inventing any information, data or citation in an academic exercise.
4. *Multiple Submission* — Submitting substantial portions of any academic exercise more than once for credit without the prior authorization and approval of the current instructor.
5. *Complicity* — Facilitating any of the above actions or performing work that another student then presents as his or her assignments.
6. *Interference* — Interfering with the ability of a fellow student to perform his or her assignments.

### Plagiarism Described\*

As defined by the Council of Writing Program Administrators, plagiarism "occurs when a writer deliberately uses someone else's language, ideas or other original (not common-knowledge) material without acknowledging its source." ("Defining and

Avoiding Plagiarism: The WPA Statement on Best Practices."

<<http://www.wpacouncil.org/positions/WPAplagiarism.pdf>>

Plagiarism can occur in the following ways:\*

- Using text from another source (e.g. websites, books, journals, newspapers, etc.) without documenting the source;
- Using direct quotation from a text without quotation marks, even if the source has been cited correctly;
- Paraphrasing or summarizing the ideas or text of another work without documenting the source;
- Substituting a word or phrase for the original while maintaining the original sentence structure or intent of the passage;
- Using graphics, visual imagery, video or audio without permission of the author or acknowledgment of the source;
- Translating text from one language to another without citing the original work;
- Obtaining packaged information, foreign language translation or a completed paper from an online source and submitting it as one's own work without acknowledgment of the source; and
- Presenting the work of another student as one's own.

Fairleigh Dickinson students are responsible for authenticating any assignment submitted to an instructor should the instructor request it. Students must be able to produce proof that the assignment they submit is actually their own work. Therefore, students must engage in a verifiable work process on all assignments:

- Keeping copies of all drafts of work;
- Making photocopies of research materials (including downloads from websites);
- Writing summaries of research materials;
- Keeping Writing Center receipts;
- Keeping logs or journals of their work on assignments and papers; and
- Saving drafts or versions of assignments under individual file names on a computer, external drive or other source.

In addition to requiring students to authenticate their work, Fairleigh Dickinson University instructors may employ various other means of ascertaining

authenticity — such as using search engines to detect plagiarism, using external plagiarism-detection services, creating quizzes based on student work and requiring students to explain their work and/or process orally. The inability to authenticate work is sufficient grounds for a charge of plagiarism.

If subsequent evidence of plagiarism should be found after a grade has already been assigned, instructors have the right to lower the grade and/or apply one of the sanctions listed below.

### Sanctions

Any student violating academic integrity will, for the first offense, receive one or a combination of the following penalties imposed by the faculty member:

1. *No Credit (0) or Failure for the academic exercise.*
2. *Reduced grade* for the course.
3. *Failure in the course.*
4. Recommendation for *Academic Probation* to the dean of the college in which the student is registered.

The instructor shall file a notice of the penalty in the student's file maintained in the campus Office of Enrollment Services.

In cases of interference and complicity, whether or not the student is registered in the affected course, the incident and penalty shall be recorded in the student's file maintained in the campus Office of Enrollment Services.

For a subsequent violation of academic integrity, a student will be subject to any combination of the above sanctions, and, after due review by the academic dean according to the procedure below, one of the following:

1. *Suspension* from the University for one year. Readmission will be contingent upon the approval of the academic dean.
2. *Dismissal* from the University.
3. *Dismissal from University identified on the student's academic transcript* as a result of a violation of the Academic Integrity Policy.

### Procedure

The faculty member should submit an electronic violation report to facilitate the reporting of violations of the Academic Integrity Policy, which faculty should complete if they find a student in violation of

\*Adapted from the Kirkwood Community College plagiarism policy distributed at "Critical Challenges in Distance Education: Cheating and Plagiarism Using the Internet" workshop — April 3, 2005.

\*From the Newark Academy Plagiarism Statement.

# Academic Regulations

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the policy and choose to impose a sanction ([https://publicdocs.maxient.com/reportingform.php?FairleighDickinsonUniv&layout\\_id=4](https://publicdocs.maxient.com/reportingform.php?FairleighDickinsonUniv&layout_id=4)). When a faculty member believes that a student has violated the Academic Integrity Policy, the faculty member shall discuss the incident with the student as soon as possible. If after the conference, the faculty member determines that an act of academic dishonesty has occurred, the faculty member may impose the appropriate sanctions. Within five days of the faculty member's action, the faculty member shall notify his or her department chair/school director in writing of the circumstances of the violation and the imposed sanctions. Within five days the academic department/school shall notify the student via certified mail/return receipt of the sanctions and the appeals' procedures. Copies of the notice shall be sent to the chair of the department or director of the school of the student's major, the dean of the college in which the course is offered and the campus Office of Enrollment Services. The student may appeal the instructor's decision as outlined below. Upon completion of the appeals process, the dean shall notify the student of the final disposition of the matter and the sanctions to be imposed, if any, via certified mail with copies to the faculty member, the department chair/school director and the campus director of enrollment services.

## Appeals Process

A student who is charged with violating the Academic Integrity Policy by an instructor may appeal in writing to the chair of the department or the director of the school in which the alleged incident took place. The letter must state the specific grounds for the appeal. The student must submit a written appeal to the department chair or school director within 14 days of the receipt of the notification of the imposed sanctions. Failure to make an appeal within this 14-day period shall constitute a waiver of the appeal right. Within 10 working days of receipt of the student's appeal, the chair/director will review the circumstances of the alleged violation with the student and the instructor and recommend upholding, modifying or dismissing the sanctions imposed by the instructor. The chair/director, within five working days, shall notify the student in writing via certified mail of the outcome, with copies to the instructor, the chair/director of the student's major, the academic dean of the

college in which the course is taught and the campus director of enrollment services. If it is determined that a violation of academic integrity did not occur, the student's final grade in the course cannot be based on the assumption of such violation. If the differences between the instructor and the student are not resolved by this review, the student may appeal the outcome to the dean of the college in which the course is offered.

Within 10 working days of the department chair/school director's notification, the student may submit a written appeal to the dean of the college in which the alleged dishonesty took place. The letter must state the specific grounds for the appeal. Upon receipt of the student's appeal, the dean shall provide the faculty member and his or her chair/director with a copy of the student's appeal. Within 10 working days the dean shall convene a five-person hearing committee consisting of a faculty member at large from the college in which the course is offered, the dean or his or her designee, the campus dean of students or his or her designee, a faculty member from the department or school of the student's major and a student, selected by the campus dean of students, from the college in which the alleged dishonesty took place. The hearing will be chaired by the college dean or his or her designee. The role of the appeals committee is to review the record of the matter and determine whether a finding of academic dishonesty is founded and whether a sanction is consistent with the terms of this policy. The committee shall base its decision upon a review of the record but may meet with the student and the faculty member to secure additional information to help it in making a determination about the merits of the appeal. The committee can uphold, modify or dismiss the sanction imposed by the instructor. The college dean shall notify the student of the committee's decision within five working days of the hearing. For a second offense of academic dishonesty, the academic dean can suspend or dismiss the student as indicated above.

For a sanction of suspension or dismissal imposed by the academic dean, the student may file a written appeal to the University provost/senior vice president for academic affairs within 10 working days of receiving the notification of the dean's decision. The University provost, or his or her designee, shall review the case within 10 working days of the receipt of

the appeal. The University provost shall make the final decision, using any appropriate resource to assist in deciding the appeal. The University provost shall then notify all parties in writing of his or her final decision within five working days of his or her decision.

## Attendance

Students are required to attend class, arrive on time and participate in all courses for which they are enrolled. Class attendance and participation are essential to academic progress. At the beginning of each semester, instructors will express the specific attendance requirements for each course according to the policies of their academic departments and colleges. The policy will clearly delineate the number of permissible absences and the sanctions to be applied for excessive absences or tardiness. Each instructor will include the attendance policy on each syllabus to prevent any misunderstanding of the requirements for the course.

## Student Status

Student status shall be determined by the number of credits per fall or spring semester. A full-time student is one who registers for 12 or more credits, and a part-time student is one who registers for less than 12 credits. Half-time status is applied to students who register for a minimum of 6 credits but less than 12 credits. The only exception to this regulation will be those students in the final semester before graduation who need fewer than 12 credits to graduate and who normally have carried 12 or more credits per fall or spring semester while attending Fairleigh Dickinson University. These people will be considered full-time students.

## Class Standing

The designation of a student's class standing shall be determined by the number of credits completed. The divisions are as follows:

- 0–30 credits — Freshman
- 31–60 credits — Sophomore
- 61–90 credits or an earned associate degree and fewer than 96 credits — Junior
- 91 and beyond — Senior

## Residence Requirement

The University requires that each candidate for the baccalaureate degree complete a minimum of 25 percent of the



credits required for the degree including at least 50 percent of the credits required for a major to be taken in the department offering the major. In the Silberman College of Business, a majority of required business core, restricted business core courses and a majority of courses in the major must be completed from the Silberman College of Business. The credits making the 50 percent are listed under the business core, restricted business core and major (discipline) headings.

The University requires that each candidate for the associate degree complete a minimum of 30 credits in residence including 50 percent of the credits required for the core course work.

## Semester Credits and Normal Load

The normal credit load for an undergraduate student is 16 credits each semester. A credit is defined as one lecture hour or recitation a week, or two or three hours of laboratory a week for the duration of the semester. Additional credits may be taken according to the conditions described under "Acceleration" in this section.

## Credit Hour Definition

The University's calculation of credit hours for all credit-bearing courses and degree programs follow rules established by the New Jersey Secretary of Higher Education, which are consistent with the U.S. Department of Education's definition of a credit hour.

Section 9A:1-1.2 of the New Jersey Administrative Code provides that "*Semester credit hour*" means 50 minutes of face-to-face class activity each week for 15 weeks (or the equivalent attained by scheduling more minutes of face-to-face class activity per week for fewer weeks in the semester) in one semester complemented by at least 100 minutes each week of laboratory or outside assignments (or the equivalent thereof for semesters of different length).

## Maintenance of Satisfactory Achievement

It is the responsibility of students to be sure that they meet academic standards and that they remove any academic deficiency as quickly as possible. Students who encounter difficulty must confer with the

course instructor and with their adviser without delay.

## Grades and Grade Points

A system of grade points is used to determine a student's general average. Weighted letters\* for each credit hour are assigned grade points as follows:

A	=	4.00	C+	=	2.33
A-	=	3.67	C	=	2.00
B+	=	3.33	C-	=	1.67
B	=	3.00	D	=	1.00
B-	=	2.67	F	=	0.00

The grade point ratio of a student is equal to the total number of grade points divided by the total number of credits attempted.

The value of other letter grades is as follows:

P	Pass
NC	No Credit
W	Withdrawal
I	Incomplete
AU	Audit

Regulations governing letter grades:  
P-Pass — to be counted toward baccalaureate requirements but not averaged into student's cumulative grade point ratio (CGPR).

NC-No credit — not to be credited toward the baccalaureate requirements nor averaged into the CGPR.

W-Withdrawal — not to be credited toward the baccalaureate requirements nor averaged into the CGPR. A student may withdraw from a course through the ninth week of a semester (through the fourth week of a six-week summer session). After the ninth week (fourth week in a six-week summer session), withdrawal may be permitted for serious, documented, medical reasons or other unusual extenuating circumstances. Students requesting late withdrawal should present evidence of unusual circumstances and/or medical documentation to the dean of the College.

I-Incomplete — this designation is not a substitute for a letter grade. It merely describes a student's temporary status in a course. It is to be given only in exceptional or emergency circumstances at the discretion of, and after consultation with, the instructor. Students have a responsibility for completing all work in a course on time. They have the added responsibility of notifying the instructor of circumstances preventing them from completing the

requirements on time. Students will have up to the third week of the next full semester (excluding summer sessions) to complete the requirements. If the requirements have not been met within the prescribed period, the I automatically will become an F. The F is a letter grade and will count in the student's CGPR.

## Pass/No Credit

Fully matriculated students are eligible to take courses for Pass/No Credit (P/NC) only if they have completed a minimum of 64 credits in residence and are in good academic standing, except for students enrolled in courses that use only such grading. Courses at Wroxton College may not be taken P/NC. Forms for this process are available in the Office of Enrollment Services and must be completed within the first three weeks of the semester (within the first week for summer sessions). A maximum of 12 credits of Pass/No Credit course work may be applied toward the degree, with no more than 3 credits or one course (whichever is greater) taken in one semester. Such course work can be taken in free elective courses only, not in major course work or to satisfy curriculum requirements. Interpretations of curriculum requirements and elective courses are made by the dean's office of the student's College. Courses for which a P grade is earned will count toward the credit requirement for the baccalaureate degree requirements. In neither case will the semester or cumulative grade point ratio (CGPR) be affected by a P or an NC grade. A weighted letter\* grade will not be provided after the P/NC option has been declared.

The student is counseled to apprise himself or herself of the professional and/or graduate school requirements prior to making a decision to elect a P or NC grade. Departmental and counseling service personnel are available to assist the student in making this decision.

## Repeated Courses

If a student repeats a course, both the first and second (third, etc.) grades will remain on the transcript, but only the last earned grade will be computed in the cumulative grade point ratio (CGPR). (Note: weighted NC, W, I and AU are not considered

\*See "Cumulative Grade Point Ratio" on next page.

\*See "Grades and Grade Points" on this page.

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earned grades.) Any repeated course taken to remove the credits attempted and any grade points earned from a lesser previous grade must originally have been taken at Fairleigh Dickinson University and must also be repeated at Fairleigh Dickinson University.

If a student has been found guilty of academic dishonesty, the F grade for this course is not to be removed *from the student's transcript or from the cumulative grade point ratio calculation* when the course is repeated.

Also see Financial Aid, Repeated Courses, page 22.

## Cumulative Grade Point Ratio

The cumulative grade point ratio (CGPR) is computed by dividing the total number of grade points earned by the total number of credit hours attempted. This is one of the principal criteria for determining a student's academic performance.

## Evaluation Procedures

Instructors notify their students at the beginning of each semester or session as to the procedure used to evaluate student performance.

## Grade Appeal Procedure

While it is recognized that faculty hold the right and responsibility to grant a grade, a student who receives a grade that he or she believes to be unwarranted may appeal that grade by engaging in the following process:

1. Within the first three weeks\* of the start of the following full semester (fall or spring) in which the grade is received, the student shall have informally appealed the grade to the instructor. If no resolution of the matter results to the student's satisfaction, the student may initiate the following formal appeal process.

2. The student shall request in writing a meeting with the respective department chairperson concerning the grade in question. For University Core appeals, the director of University Core on each campus will replace a department chair at this level of appeal.

*\*In the case of a student who is being kept from either graduating or registering because of the grade in question, the process should begin immediately upon receipt of the grade report. If either the instructor or department chair is unavailable, the student may proceed directly to the dean.*

3. The chair shall report to the student on the resolution of the appeal within two weeks of that meeting.

4. If the issue is not resolved to the student's satisfaction, the student has one week to appeal in writing to the dean of the College in which the course is taught. For University Core appeals, the University provost's designee will replace the dean at this level of appeal.

5. The dean shall review the entire matter with the student, the faculty member and/or the chairperson involved.

6. If the dean feels there is no basis for a grade change, that determination is final and should be conveyed to the student in writing within two weeks of receipt of the student's appeal.

7. If the dean believes that an erroneous grade exists, the dean shall attempt to resolve the issue with the instructor. If, however, resolution is not achieved, the dean shall refer the case to the College Ad Hoc Grade Appeal Committee.

8. The committee is expected to convene within two weeks after receipt of the dean's referral.

9. Each College Ad Hoc Grade Appeal Committee shall consist of three faculty and one alternate selected by the College dean and a professional staff person selected by the dean of students. Whenever possible, two of the faculty shall belong to the department or discipline of the instructor whose grading is in question.

10. The committee shall have the authority to recommend an appropriate course of action to the dean who shall have the authority to implement the recommendation. The recommendation shall be conveyed to all parties involved, in writing.

## Grade Reports

At the end of each semester the Office of Enrollment Services will mail to each student his or her grades for all courses taken during that semester. Students may also access grades online via WebAdvisor. Students must have a "NetID" (formerly Webmail) account in order to access WebAdvisor. For assistance in obtaining a NetID (formerly Webmail) account call computing services at (201) 692-7111. If a student needs technical assistance once he/she has access to WebAdvisor, email [webadvisoradmin@fdu.edu](mailto:webadvisoradmin@fdu.edu).

## Transcripts of Records

Transcripts of records are made available via an online ordering service at [www.getmytranscript.org](http://www.getmytranscript.org). The cost of a transcript is \$5.00\*. Transcripts may be withheld if a student owes money to the University or has past-due federal loans at the time of the request.

## Academic Standards

The University expects its students to make normal progress toward a degree. For most students, this means the attainment of at least a 2.00 grade point ratio for each semester. Students whose grade point ratio falls below 2.00 should immediately check with their advisers regarding their status. Maxwell Becton College of Arts and Sciences requires a 2.33 cumulative grade point ratio in major courses for graduation. The Henry P. Becton School of Nursing and Allied Health requires that students earn a grade point ratio of 2.50 for progression in the nursing courses.

## Scholastic Eligibility for Student Activities

The cumulative grade point ratio (CGPR) for eligibility has been established for the various student activities. Specific provisions are found in the *Student Handbook* issued by the dean of students on each campus. In addition, athletes must meet eligibility standards as set by the National Collegiate Athletic Association (NCAA). Students who have knowledge of information that may affect their eligibility are required to disclose that information prior to participation. The Peter Sammartino School of Education requires a minimum 3.00 cumulative grade point ratio for participation in the QUEST program.

## Review of Student Records

The faculty of each College will review the records of full-time students at the end of the fall and spring semesters. The records of all part-time students will be reviewed after they complete blocks of 12 credits.

Students showing 9 credits or more of W designates within 32 attempted credits will be subject to academic review. Such a pattern

*\*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.*

may indicate that a student is not making satisfactory progress toward the completion of undergraduate degree requirements.

## Probation and Academic Disqualification

A cumulative grade point ratio (CGPR) of at least 2.00 is required for graduation. A student will be placed on probation if the semester or CGPR falls below 2.00. A student will be continued on probation for one semester if the semester grade point ratio is 2.00 or higher, but the CGPR is below 2.00. Thereafter, the student must maintain a semester grade point ratio of at least 2.20 until the CGPR reaches 2.00 to continue with a full academic load.

A student will be removed from probation if both the cumulative and semester ratios are 2.00 or higher.

A student on probation who does not fulfill the above requirements may:

1. Be continued in a full-time program with a reduced load of 12 credits for one semester. In such a case, it shall be the responsibility of the appropriate department chairperson, school director or College dean to assign a faculty adviser to that student to prescribe a remedial program of directed guidance suited to the student's need.

2. Be reduced to a part-time credit load with a probation credit load of not more than 9 credits per semester. The student must maintain a semester average of 2.20 or higher. Such a student may appeal to the appropriate office for transfer back to a full-time program for full credit only when the semester average is 2.20 or higher and his or her CGPR is 2.00 or higher.

3. Be suspended from the University. Students who are suspended from the University may apply for readmission under special conditions as described in "Readmission" (see page 16).

4. Be dismissed from the University. A student who is dismissed may not apply for readmission. The student is dropped from the University, both full-time and part-time programs.

## Credits Taken at Other Academic Institutions

A Fairleigh Dickinson University degree should represent course work done under the academic standards of this University. Any authorization for courses at another regionally accredited academic institution

should be held to a minimum and limited to winter and summer sessions only. *Once a student is matriculated at the University, only 16 such credits may be counted toward graduation. The maximum of 16 credits is reduced by 3 credits for every 16 credits earned at another institution and transferred at the time of matriculation. This limit shall not apply to formally approved programs of study in association with other institutions of higher learning. Students cannot repeat an FDU course at another institution.*

Authorization to take courses offered by another institution must be obtained prior to the semester or term in which the course will be taken and includes completion of the appropriate form. *The student must have a minimum cumulative grade point ratio of 2.00 to be eligible.* This authorization may be granted for elective courses and makeup credits for courses not available at the University in time to meet graduation requirements, but normally not for core or required major courses. In any case, the course so authorized must be demonstrably equivalent in content and level to the course it is intended to replace and must be found appropriate to the student's curriculum.

For a course outside the student's major at an institution with which the University maintains an articulation agreement, the authorization requires the signature of the dean of the student's College or his or her designee. For a course at an institution with which the University does not maintain an articulation agreement, the authorization requires the signature of the dean of the student's college or his or her designee in consultation with the chairperson or director of the student's major department or school. For a course in the student's major, the authorization requires the signature of the chairperson or director of the student's major department or school in addition to that of the dean of the student's college or his or her designee.

A course substituting for a lower-level course at Fairleigh Dickinson University may be taken at either an accredited two-year or four-year institution; but a course substituting for an upper-level course at Fairleigh Dickinson University must be taken at an accredited four-year institution.

Students enrolled for course work at Fairleigh Dickinson University in any one semester and/or summer session may not enroll simultaneously for course work at

another institution. Exceptions to the above policy would include only approved programs, such as the Honors Program, with established guidelines.

*A minimum grade of C (not P/F) must be earned in any course taken in this manner in order to be counted toward graduation at Fairleigh Dickinson University.* Only students matriculated at Fairleigh Dickinson University and granted permission to take a course(s) at another academic institution will have the earned weighted grade(s) recorded and computed in the grade point ratio as if the course(s) were taken at Fairleigh Dickinson University.

Students may obtain additional information regarding the approval process from the dean's office of their College.

## Change of Majors

Information on the procedures to change a major may be obtained in the campus Office of Enrollment Services.

When students find it necessary to change their curriculum, they may be relieved of grades of F and, at their discretion, grades of D in subjects not required by the new curriculum, for the purpose of recalculating the grade point ratio only.

This privilege is extended only once for a student in his or her college career at Fairleigh Dickinson University and must be exercised not later than the close of the student's fourth semester. If granted, it is limited to a student who is matriculated with at least 16, but not more than 64 credits. It may not be used to circumvent prior faculty action. This process may be implemented under the following circumstances: 1) required by a faculty evaluation, or appeals committee or by the faculty of the students' major; or 2) recognition by the student, with the endorsement of one or more faculty members, including his or her adviser, department chairperson or College dean, that the student has made a wrong choice and cannot hope to succeed in his or her present curriculum. This procedure is selective and not automatic.

## Application for Graduation

Students are required to notify the Office of Enrollment Services of their intention to graduate no less than eight months prior to graduation.

The link for the application to graduate is located in the student system WebAdvi-

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sor ([webadvisor.fdu.edu](http://webadvisor.fdu.edu)) under Academic Profile. Click on the link: Application for Graduation.

Students are billed the Graduation Fee at the time of application.

Prior to filing for graduation, students should carefully review their degree requirements with their advisers and be prepared to fulfill any deficiencies. No student needing more than 6 credits to earn a degree will be permitted to walk at graduation. Degrees are awarded September 1, February 1 and the day of commencement in May.

## Double Major

Students who intend to satisfy requirements for more than one major must declare the second major to the campus Office of Enrollment Services. Both majors will be recorded on the transcript.

## Secondary Areas of Concentration/Minors

A minimum of 15 to 18 credits as specified by the appropriate department or school must be completed successfully to satisfy the requirement for a secondary area of concentration/minor. Courses used to satisfy core and/or curricular requirements may be used to fulfill the requirements for a secondary area of concentration/minor.

For minors in the Silberman College of Business, see specific requirements on pages 103–114.

## Honors and Dean's Lists

The Honors List and Dean's List are issued each semester and contain the names of students who have achieved a grade point ratio of 3.50 and 3.20 respectively. To be eligible, full-time students must complete a minimum of 12 credits during a semester. Weighted letter grades must be earned for all courses except for one that may be taken on a P/NC basis and may be included provided that a P grade is earned. Exceptions to the 12-credit minimum are as follows: 1) full-time students who are in special programs of study such as the clinical internship for allied health majors; 2) students beyond 95 credits who can complete degree requirements with a reduced load. In these special instances, all courses must be taken on a weighted letter grade basis.

Part-time students may qualify for the Honors List or Dean's List if they carry 6 or more credits each semester and achieve a grade point ratio of 3.50 and 3.20, respectively, for a minimum of 12 consecutive credits. Weighted letter grades must be earned for all courses except for one that may be taken on a P/NC basis and may be included provided that a P grade is earned.

## Graduation Honors

A student whose cumulative grade point ratio (CGPR) for four years is 3.85 will receive his or her degree *summa cum laude*; if the CGPR is 3.67, *magna cum laude*; if the CGPR is 3.33, *cum laude*. Only weighted grades will be included in computing honors. Credits taken at Fairleigh Dickinson University and approved credits taken at other academic institutions after a student matriculates, with a minimum of 54 credits, will be used in this evaluation.

Associate degree honors are awarded to students who achieve a 3.67 CGPR in two-year programs at Fairleigh Dickinson University.

## University Honors Program

The University Honors Program recognizes students of high academic achievement and talent. It offers gifted and motivated students the opportunity to pursue a course of college study that combines a broad liberal education with intensive, guided study in a particular major field of interest. The Honors Program encourages experiential learning outside of the classroom. Students are offered the opportunity to take advantage of New York City's and New Jersey's varied cultural and educational resources, to undertake independent research and to prepare a senior honors thesis.

The curriculum of the University Honors Program features advanced honors sections of the University Core curriculum as well as a variety of other honors-level studies. Students must take one honors course each semester.

### Freshman Year

Honors Composition I: Rhetoric and Inquiry ENWR1001 (Metropolitan Campus only)

Honors Composition II: Research and Argument ENWR1002 (Metropolitan Campus only)

Honors College Writing ENGW1000 College Writing Workshop (Florham Campus only)

Honors Core 1001 UNIV1001 Transitioning to University Life; UNIV1002 Preparing for Professional Life  
Honors Research Writing ENGW1002 (Florham Campus only)

### Sophomore Year

UNIV2001/Honors Core 2003 Cross-cultural Perspectives

UNIV2002/Honors Core 3004 Global Issues

English 2201 Masterpieces of World Literature I (Metropolitan Campus only)

English 2202 Masterpieces of World Literature II (Metropolitan Campus only)

Theater 1104 History and Development of Theater II (Florham Campus only)

### Junior Year

HON3301 Junior Honors Seminar

### Senior Year

HON4402 Senior Honors Research

HON4401 Senior Honors Thesis

The FDU Honors Program scholar is a student interested in sharing in the community of scholarship and collegiality of the University. Each member of the program is an individual who has demonstrated a high degree of academic competency, intellectual curiosity and personal maturity. The honors student is an individual who has shown promise of benefiting from a program with specially focused curricular requirements, individual guidance and independent study. Entering freshmen with a 3.33 (B+) grade point ratio in high school and combined SAT scores of 1,150 (or equivalent ACT score of 25 or higher) are eligible for consideration to participate in the Honors Program. Any qualified transfer student or currently enrolled student may apply for membership in the University Honors Program at any time prior to the second semester of the junior year. To qualify for University Honors Program recognition upon graduation, however, students must apply for admission into the program prior to the first semester of their junior year.

For detailed information about the University Honors Program, please contact the University Honors Program Office on each campus.

## Acceleration

The normal time periods required for completion of the associate and baccalaureate degrees are two and four years, respectively. However, students may accelerate their programs and complete degree requirements in a shorter period by taking additional course work, as available, during the summer and winter sessions and by taking more than the normal semester course load, subject to approval of an appropriate adviser. Additionally, students may receive credits by examination.

## Remediation

The University recognizes that some of its students require developmental course work in areas such as writing and mathematics. *These courses do not carry college credit toward the degree.* The load involved in a remedial course shall be counted, to the extent permitted by applicable laws and regulations, as part of a student's academic load for the purpose of determining full-time status and other eligibilities that are based upon academic load.

Placement in these courses may be determined by formal testing.

## Credits by Examinations

A student accepted by the University as a matriculant or prematriculant, and who has permission of a department chairperson, may earn academic credit through:

1. College-Level Examination Program (CLEP). See Credit for Prior Learning, page 15.

2. The New York College Proficiency Examination Program. Information on the examinations offered and applications to take the examinations must be obtained from the New York College Proficiency Examination Program, the University of the State of New York, Education Department, Albany, New York 12210.

3. Other proficiency examinations approved in advance by the University. Forms to be used in requesting approval for credit by examination are available for matriculated students in the campus Office of Enrollment Services and for newly accepted students in the Admissions Office. Forms must be completed and submitted prior to examination registration.

A maximum of 60 credits may be earned through college proficiency examinations. Of the 60 credits, the total credits for general subject area shall not exceed 30 credits.

A New York College Proficiency Examination may be repeated once if the first grade is D or F. An examination in which a grade of C or B is received may not be repeated for a higher grade.

Credits earned through college proficiency examinations will be treated as transfer credits and labeled "credits by examination" on transcripts and are not used to calculate the CGPR. A student may not use an examination to pass a course that he or she has failed, nor may a student who is on probation or who is suspended take an examination.

The student will pay any fees required by the examining agency and in addition will pay a transfer fee to the University for each posting.

Credits toward teacher certification may be earned through College Proficiency Examination both in New York and New Jersey to satisfy requirements in general education in the teaching field and in professional education. No examination, however, is contemplated to replace the practice teaching requirements.

## Academic Leave of Absence

An academic leave of absence that permits a student to return without academic penalty may be granted only to a matriculated student with a CGPR of 2.00 or higher. A leave may cover only one semester with the privilege of renewal for one more consecutive regular semester.

A leave of absence may be granted for 1) medical, 2) financial, 3) employment and 4) military reasons. Verification in writing must be furnished where applicable by the physician, employer or other authority.

Authority to grant a leave of absence resides with the dean of students. To request a renewal, a student must submit an appeal in writing to the dean of students.

## Withdrawal

A student must notify the campus Office of Enrollment Services, in writing, on the form provided, of his or her intention to withdraw from study.

The penalties for withdrawing on the first day of the semester, and after, are published on page 25 of this bulletin, on the reverse side of the registration and program change forms, and in the fall, spring

and summer *Course Booklets* on WebAdvisor (<http://webadvisor.fdu.edu>).

Students who wish to return at a later date must reapply through the Admissions Office.

## Military Duty

When a currently enrolled student is called into military service during the first 12 weeks of a semester, he or she will receive a prorated return of fully paid tuition on courses carried at the time of withdrawal.

A student who has attended 12 or more weeks of a semester and who is called into military service will be granted the privilege of early examinations in his or her courses. Full credit and earned grades will be recorded if these courses are passed satisfactorily. Tuition will not be refunded if this option is exercised.

## Readmission

Those suspended from the University may apply for readmission after a lapse of at least one semester exclusive of the summer session. In these cases substantial evidence of readiness to resume college-level work must be submitted.

The request for readmission should be filed with the Admissions Office prior to August 1 for the fall semester and December 1 for the spring semester.

When a student returns to FDU after an absence of seven years or more, credit will not be recognized for courses in the student's major in which the student had previously received a grade of less than C (2.00).

In addition, a student upon returning after a seven-year absence may opt, in writing, not to receive credit for any nonmajor courses in which the student had earned a grade less than C (2.00). In that event, such courses will not be counted in the computation of the grade point ratio. The grades for the courses in question will remain on the student's transcript even though they will not be figured in the computation of the GPR.

## Honor Societies

Students admitted to Fairleigh Dickinson University with advanced standing may be eligible for admission to the University's Honor Societies, namely Phi Zeta Kappa and Phi Omega Epsilon, when they qualify according to the standards set by the societies. The credits taken at Fairleigh Dickinson University may include credits taken

# Academic Regulations

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off campus with prior University approval as outlined under “Credits Taken at Other Academic Institutions” on page 43.

Honor societies include:

**Alpha Eta Society (Florham Campus only):** Allied Health Professions National Honor Society. Eligibility for membership:

I. *Associate* — those undergraduate allied health students working toward an associate degree who have complied with the following conditions:

1. They shall be enrolled in an allied health curriculum leading to an associate degree and shall be in their last semester of enrollment.

2. They shall have maintained an overall scholarship average of 3.50 or better (out of 4.00) while enrolled in the allied health program.

3. Not more than 10 percent of the graduating class of a specified program shall be invited to membership or, in those programs with fewer than 10 students, no more than one student will be invited to membership.

4. They shall have shown capacity for leadership and achievement in their chosen allied health field.

5. They shall have been recommended by members and approved by the deans of the allied health unit or their equivalents.

II. *Baccalaureate* — Those undergraduate students working toward a baccalaureate degree who have complied with the following conditions:

1. They shall be enrolled in an allied health program leading to a baccalaureate degree and will be enrolled in their last semester.

2. They shall have maintained an overall scholarship average of 3.50 or better (out of 4.00) while enrolled in the allied health program.

3. Not more than 10 percent of the graduating class of a specified program shall be invited to membership or, in those programs with fewer than 10 students, no more than one student will be invited to membership.

4. They shall have shown capacity for leadership and achievement in their chosen allied health field.

5. They shall have been recommended by members and approved by the deans of the allied health unit or their equivalents.

**Alpha Epsilon Rho (Florham Campus only):** National broadcasting society. The National Broadcasting Society — Alpha Epsilon Rho, is a student and professional

society of more than 85 chapters on college, university, community college and high school campuses. Through the years, the society has had as its purpose the goal of encouraging and rewarding scholarship and accomplishment among students of film and broadcasting, to establish meaningful communication between student and professionals and to foster integrity in the use of the powerful instruments of radio, television, film, cable and its many associated businesses and industries.

**Alpha Kappa Delta:** National honor society for sociology students. The society was founded in 1920 for the purposes of stimulating scholarship and promoting the scientific study of society. The organization was established to provide a forum for student and faculty interchange and paved the way for what has become an international organization dedicated to promoting, facilitating and recognizing academic scholarship. To date, more than 80,000 scholars have been initiated into the society, including those in the United States, Canada, China, Finland, the Philippines, Taiwan and Singapore.

**Beta Beta Beta, Chapter of Omega Iota:** National biological honor society. The society seeks to encourage scholarly achievement for undergraduate students who achieve superior academic records and who have an interest in the life sciences. The society emphasizes the stimulation of scholarship, dissemination of scientific knowledge and promotion of biological research. To be eligible for regular membership, students must major in biological science, complete at least one term of the second year of a four-year curriculum, complete at least three courses in biological science and have a grade point ratio of 3.20 or higher in those biology courses. In addition, the student must be in good academic standing with the University.

**Beta Gamma Sigma (BGS):** The only business honor society recognized by AACSB International - The Association to Advance Collegiate Schools of Business. BGS was founded as a national organization in 1913. The mission of BGS is to encourage and honor academic achievement and personal excellence in the study and practice of business. Membership in BGS is the highest recognition a student can receive in an undergraduate or master's business program accredited by AACSB International. To be eligible for membership, a student must rank in the

upper 10 percent of the junior class, upper 10 percent of the senior class or upper 20 percent of the graduating master's class.

**Epsilon Rho, Chapter of Sigma Theta Tau:** International honor society in nursing. Baccalaureate nursing students 1) who have completed one-half of the required curriculum, 2) who have demonstrated ability in nursing, 3) who have at least a 3.00 CGPR and 4) whose numbers do not exceed one-third of the total number expected to graduate in that class are eligible for membership.

**Eta Kappa Nu (Metropolitan Campus only):** The only electrical engineering honor society. The society speaks for electrical engineering scholars throughout the world. There are 152 college chapters in major institutions, including several in Europe and in South America. The top quarter of the junior class and top third of the senior class are invited each year to become members of the Theta Gamma Chapter at Fairleigh Dickinson University. To qualify, students must have a CGPR no lower than 3.20 and must have earned at least 45 credits at this University. Graduate students may join on recommendation of the electrical engineering school director and the faculty adviser.

**Eta Sigma Delta:** International hospitality management honor society. Eta Sigma Delta was originated in 1978 at the University of New Hampshire and currently has more than 90 active chapters worldwide. The Fairleigh Dickinson University, International School of Hospitality and Tourism Management Chapter was founded in 1981. Eta Sigma Delta (ESD) Honor Society has developed an important role within the Council on Hotel, Restaurant and Institutional Education (CHRIE) organization, which is the ESD parent organization.

To be eligible for membership, FDU chapter students are required to have a grade point ratio of at least 3.00 and to take an active leadership role in the school and hospitality-related community service. Members are inducted in a ceremony held annually in November. At that time, they commit to performing acts of community service and outreach, as they demonstrate proactive leadership.

For honorary members to be eligible, they must be hospitality/tourism professionals, faculty, administrators or other distinguished individuals who have made significant contributions to the field.

**Omicron Delta Epsilon:** International economics honor society. Eligibility for membership is based on a 3.00 grade point ratio or better with at least 12 credits in economics and a grade point ratio better than 3.00. Omicron Delta Epsilon is one of the largest international honor societies. Each New Jersey campus of Fairleigh Dickinson University has a chapter.

**Omicron Lambda, Chapter of Lambda Pi Eta:** Communication studies honor society. The goals of Lambda Pi Eta are to recognize, foster and reward outstanding scholastic achievement; to stimulate interest in the field of communication; to promote and encourage professional development among communication majors; to provide an opportunity to discuss and exchange ideas about the field; to establish and maintain close relationships and understanding between faculty and students; and to explore options for further graduate studies.

To be eligible for membership, students must have completed 60 undergraduate credits, have a cumulative grade point ratio of at least 3.00, have completed the equivalent of four communication courses, have a grade point ratio of at least 3.25 in these courses and currently be enrolled as a full-time student in good standing with the department, the college and the University.

**Phi Alpha Theta:** International honor society in history. Phi Alpha Theta is the highest-rated departmental honor society. Students with an average of 3.10 or better in history courses and an average of 3.00 in two-thirds of the remainder of their work are eligible for membership. Eligibility for honor societies for transfer students will be based on all work done at other accredited institutions and a grade point ratio at Fairleigh Dickinson University that meets the grade point ratio requirement for membership in the honor society.

**Phi Omega Epsilon:** Eligibility for membership in the University's senior honor society is established by completing at least 90 earned credits toward an undergraduate degree with a CGPR of 3.50. Of these 90 credits, the last 58 must have been taken at the University, and a CGPR of 3.20 must have been maintained for all of them. All the preceding requirements must have been fulfilled prior to the accumulation of 112 credits. Transfer students who are unable to fulfill the prerequisite 58-credit requirement will be able to establish

eligibility if they have taken at least 32 credits prior to the accumulation of 112 credits and if they have maintained a CGPR of 3.50 during their entire career at Fairleigh Dickinson.

**Phi Zeta Kappa:** Eligibility for membership in the University's junior honor society is established by completing at least the first 60 credits toward an undergraduate degree. Of these, 44 must have been earned at Fairleigh Dickinson and a CGPR of 3.20 must have been maintained for all of them. All the preceding requirements must have been fulfilled prior to the accumulation of 80 credits toward the undergraduate degree.

**Pi Mu Epsilon:** National honor society in mathematics. Students with an average of 3.20 or better in mathematics and an overall average of at least 3.00 are eligible for membership.

**Pi Sigma Alpha:** The Kappa Omicron Chapter of Pi Sigma Alpha. It receives into membership students of government, political science, public administration and international relations, when such students attain high standards of scholarship and academic distinction both in political science and in the sum of their academic work. Its chapters are established in colleges and universities of accredited and recognized standing that offer at least the prescribed minimum of work in political science.

**Psi Chi:** National honor society in psychology. Psychology majors who have attained a CGPR equivalent to or greater than 3.20 and a grade point ratio of 3.50 in psychology courses, and who have demonstrated high standards of personal behavior, are eligible for induction. Each psychology department also requires completion of a minimum number of psychology credits to be eligible. Information on the minimum credits for each department is available through the department chairperson or school director on each campus.

**Sigma Tau Delta:** International English honor society. The goals of Sigma Tau Delta are to confer distinction for high achievement in the study of literature in undergraduate, graduate and professional studies; provide, through its local chapters cultural stimulation on college campuses and promote interest in literature and the English language in surrounding communities; foster all aspects of the discipline of English, including literature, language and

writing; promote exemplary character and good fellowship among its members; exhibit high standards of academic excellence; and serve society by fostering literacy. Candidates for undergraduate membership must have a minimum of two college courses in literature. The candidate must have a minimum of a B or equivalent average in literature and in general scholarship, must rank at least in the highest 35 percent of his/her class and must have completed at least three semesters or five quarters of college course work.

**Sigma Xi:** The Scientific Research Society is an international scientific honor society, the aim of which is to encourage scientific research. Graduate and undergraduate students who have completed research projects are eligible for associate membership in the Fairleigh Dickinson University Club of the society. The club is authorized to elect associate members, which is by invitation and restricted to those who are actively engaged in research. The activities of the club include the sponsorship of lectures, discussions of scientific topics and the sponsorship of competition for the best student science papers. All activities of the society are free and open to the public. The society publishes the *American Scientist*, a magazine that is sent to all members.

## University Core Curriculum

Fairleigh Dickinson University requires a common University Core curriculum consisting of four integrated courses. See page 49 for further information.

## ROTC (Reserve Officers' Training Corps)

Some students may wish to enroll in an ROTC program as part of their college experience. Full details on this program may be found on pages 276–280.

## Major Religious Holy Days

The University respects the observance of major religious holy days by members of the campus community. Officers of administration and of instruction responsible for scheduling of required academic activities or essential services are expected to avoid conflict with such holy days as much as possible.

# Degree Requirements

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## Degree Requirements

A list of the degrees awarded upon the completion of these curricula is given in the chart on the inside front cover of this bulletin.

The minimum requirements for the baccalaureate degrees are as follows:

1. A minimum of 120 credits is required for a bachelor's degree. Many programs require more than 120 credits. Contact the program director for information about specific program requirements.

2. Cumulative grade point ratio of 2.00 or better.

3. Satisfactory standards in the major field (a minimum grade of "C" in all major courses and designated business courses in the discipline in the Silberman College of Business, 2.33 in the Maxwell Becton College of Arts and Sciences and specific requirements listed for individual majors in University College: Arts • Sciences • Professional Studies).

4. Attendance at the University for at least 25 percent of the credits required for the degree including at least 50 percent of the credits required for a major to be taken in the student's major department. At the Silberman College of Business, a majority of required core courses and a majority of the major courses in the discipline must be completed within the Silberman College of Business. (See Residence Requirement, pages 40–41, for details.)

5. The time limit for completing a degree shall be 10 years from the first college enrollment, including work for which credit is transferred from another college to the final date of completion.

The minimum requirements for the associate degrees are as follows:

1. Completion of a four-semester curriculum, with a minimum of 60 credits. (72 credits for allied health majors.)

2. Cumulative grade point ratio of 2.00 or better.

3. Attendance at the University for at least 32 credits (30 credits for Anthony J. Petrocelli College of Continuing Studies A.A. degree) of academic work including at least 50 percent of the credits required for a major to be taken in the student's major department or school. (See Residence Requirement, pages 40–41, for details.)

4. The time limit for completing a degree shall be 10 years from the first college enrollment, including work for which credit is transferred from another college to the final date of completion.

Application for a degree must be made through the campus Office of Enrollment Services at least four months before the expected date of graduation.

## Preprofessional Degree Options

See "Preprofessional Degree Options," page 281.



## University Core Curriculum

### Core Curriculum

Fairleigh Dickinson University requires all students to complete a common University Core curriculum. The four courses making up the University Core program serve to fulfill the promise of the University's global learning mission: to prepare students for responsible citizenship in the global community and for professional success in the global economy. In most cases, students will complete the University Core sequence during their first and second years at FDU, providing a foundation for more advanced studies.

In addition to promoting essential academic and professional skills such as critical thinking, information literacy, self-awareness and self-development, the University Core program is designed 1) to foster international and intercultural perspectives that will give students a way of looking at the world as well as at their own countries and communities; 2) to promote understanding of individual, societal and global perspectives; and 3) to inculcate an appreciation for the interrelationships among bodies of knowledge generated in individual disciplines.

The four University Core courses are:

UNIV1001 Transitioning to University Life (1 credit)

UNIV1002 Preparing for Professional Life (1 credit)

UNIV2001 Cross-cultural Perspectives (3 credits)

UNIV2002 Global Issues (3 credits)

Complete course descriptions are available at Course Descriptions, University Core on page 286.

### Academic Regulations

No more than one Core course may be taken in any one semester unless studying abroad at Wroxton College, England; Vancouver Campus, Canada; or Chengdu American Center, China.

For entering freshmen, the order in which University Core courses are to be taken is as follows:

*First Semester* — UNIV1001  
Transitioning to University Life

*Second Semester* — UNIV1002  
Preparing for Professional Life

*Third or Fourth Semester* — UNIV2001  
Cross-cultural Perspectives

*Fourth or Fifth Semester* — UNIV2002  
Global Issues

All students should consult with an academic adviser before preparing their schedules in order to make certain that they are scheduled for the appropriate University Core course and that they have satisfied all prerequisites.

Students must complete UNIV1001 Transitioning to University Life before taking UNIV1002 Preparing for Professional Life. Students must take UNIV1001 Transitioning to University Life and UNIV1002 Preparing for Professional Life as well as either ENGW1101 College Writing Workshop or ENWR1001 Composition I: Rhetoric and Inquiry or ENGL1101 English Composition I or ENGL1111 Literature and Composition I before taking either UNIV2001 Cross-cultural Perspectives or UNIV2002 Global Issues. Students must complete UNIV2001 Cross-cultural Perspectives before taking UNIV2002 Global Issues unless studying abroad at Wroxton College, England; Vancouver Campus, Canada; or Chengdu American Center, China.

Each campus has a University Core director who administers the program for that campus. Online and off-campus programs are also administered by a University Core director. These directors are responsible for enforcing academic regulations for the University Core program.

### Transfer Students and Adult Learners

Students entering the University with 30 or more credits will be exempted from taking UNIV1001 Transitioning to University Life. Students entering the University with 45 or more credits will be exempted from taking UNIV1002 Preparing for Professional Life. Transfer students may request a waiver from the campus Core director based on their academic record and experience.

Adult learners also will be exempted from taking UNIV1001 Transitioning to University Life and UNIV1002 Preparing for Professional Life.

All students must take UNIV2001 Cross-cultural Perspectives and UNIV2002 Global Issues regardless of the number of transfer credits.

### Substitutions

There are no substitutions for University Core courses.

# Honors Programs

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## Honors Programs

There is a University Honors Program on each campus. In addition, for students who are particularly interested in global issues, there is the Global Scholars Program on the Metropolitan Campus (see this page) and Living Learning communities are being developed with various disciplines at the Florham Campus (see page 56). Students may participate in the University Honors Program and the campus-specific programs at the same time.

### University Honors Program

The University Honors Program recognizes students of high academic achievement and talent. It offers gifted and motivated students the opportunity to pursue a course of college study that combines a broad liberal education with intensive, guided study in a particular major field of interest. The Honors Program encourages experiential learning outside of the classroom. Students are offered the opportunity to take advantage of New York City's and New Jersey's varied cultural and educational resources, to undertake independent research and to prepare a senior honors thesis.

The curriculum of the University Honors Program features advanced honors sections of the University Core curriculum as well as a variety of other honors-level studies.

#### *Freshman Year*

Honors College Writing ENGW1001 (Metropolitan Campus only)

Honors Composition I: Rhetoric and Inquiry ENWR1001 (Metropolitan Campus only)

Honors Core 1001 UNIV1001 Transitioning to University Life; UNIV1002 Preparing for Professional Life

Honors Composition II: Research and Argument ENWR1002 (Metropolitan Campus only)

Honors College Writing ENGW1101 (Florham Campus only)

Honors Research Writing ENGW1102 (Florham Campus only)

Honors Contemporary Math 1126 (Florham Campus only)

Honors General Psychology 1101 (Florham Campus only)

Honors Development of Theater 1202 (Florham Campus only)

#### *Sophomore Year*

UNIV2001/Honors Core 2003 Cross-cultural Perspectives

UNIV2002/Honors Core 3004 Global Issues

English 2201 Masterpieces of World Literature I (Metropolitan Campus only)

English 2202 Masterpieces of World Literature II (Metropolitan Campus only)

#### *Junior Year*

HON3301 Junior Honors Seminar

#### *Senior Year*

HON4402 Senior Honors Research

HON4403 Senior Honors Thesis (Metropolitan Campus only)

The FDU Honors Program scholar is a student interested in sharing in the community of scholarship and collegiality of the University. Each member of the program is an individual who has demonstrated a high degree of academic competency, intellectual curiosity and personal maturity. The honors student is an individual who has shown promise of benefiting from a program with specially focused curricular requirements, individual guidance and independent study. Honors students are eligible for Honors housing. They participate in special extracurricular activities and present at regional and national Honors conferences. Entering freshmen with a 3.25 grade point average in high school, minimum SAT score of 1220 (combined Math plus Evidence-based Reading and Writing) or an ACT score of 25 or higher are eligible for consideration to participate in the Honors Program.

Any qualified transfer student or currently enrolled student may apply for membership in the University Honors Program prior to the second semester of the junior year.

For detailed information about the University Honors Program, please contact the University Honors Program Office on each campus.

### **Global Scholars Program (Metropolitan Campus)**

The Global Scholars Program at the Metropolitan Campus is a four-year selective program for entering full-time freshman resident students of any major. The program is a logical outcome of Fairleigh Dickinson University's mission as an institution developing a global perspective for tomorrow's leaders. It offers an organized and integrated course of study that com-

bines intensive academic multidisciplinary learning environments with a cross spectrum of cultural living experiences on and off campus.

Global Scholars attend a minimum of seven experiential learning programs per semester on and off campus. These include visits to the United Nations with opportunities for private briefings and internships, lectures by and receptions with ambassadors and international scholars, participation in a variety of cultural and artistic events and visits to museums. Scholars are required to participate in winter session co-curricular field experiences abroad in both their freshman and senior years. A study-abroad semester is also required. These cultural immersion experiences are intended to enrich the academic quality of a global education of all participants in this distinctive program.

A two-year residency in the Global Scholars hall is required. As a microcosm of the University's cultural and global richness, this living-and-learning experience provides a supportive, culturally diverse environment that encourages dialogue and the exchange of ideas and fosters personal contacts. Facilities include a kitchen area, online accessibility in every room and computer availability.

The Global Scholars Program at the Metropolitan Campus consists of 18 credits distributed among the campus's three academic colleges. All Global Scholars take designated sections of UNIV1001 Transitioning to University Life, Global Scholars Seminar in Political Studies (cultural experience abroad) and a capstone Winter Session (cultural experience abroad). Because this selective program accepts a limited number of applicants, entering or transfer freshmen are encouraged to apply as early as possible. Students should use the following formula to determine their eligibility: Cumulative Grade Point Average (GPA) x 200 + Combined SAT score = 1900 or greater (Combined SAT score uses only Evidence-based Reading and Writing and Math sections.). A letter of recommendation from a teacher, school counselor or administrator is required.

Qualified Metropolitan Campus students may enroll concurrently in the Global Scholars Program and the University Honors Program.

# Majors, Concentrations, Minors

Majors, concentrations and minors are listed below with pages (*Concentrations and minors are in lower case and italic type, minors are with an asterisk\**).

	FLORHAM CAMPUS	METROPOLITAN CAMPUS		FLORHAM CAMPUS	METROPOLITAN CAMPUS
<b>Accounting</b>	<b>108</b>	<b>108</b>	<i>database management</i>		155
<i>accounting*</i>	105, 108	105, 108	<i>data mining</i>	76	
<i>acting</i>	99		<i>design and technical theater</i>	99	
<i>actuarial science</i>	93		<i>diagnostic medical sonography</i>	95	192
<i>advertising*</i>	58, 72	152	<i>digital humanities</i>		175
<i>African-American studies*</i>	58		<i>digital humanities*</i>		134, 177
<i>Africana studies*</i>		132	<i>digital marketing</i>	114	114
<b>Allied Health Technologies</b>	<b>65</b>	<b>138</b>	<i>digital marketing*</i>	105, 106, 114	105, 106, 114
<i>American government and politics</i>		198	<i>digital media for advertising*</i>		141
<i>American studies</i>		174	<i>digital tools for social media*</i>		141
<i>American studies*</i>		132, 176	<i>directing</i>	82, 84, 100	
<i>anatomy and physiology</i>	68		<i>dramatic literature and performance*</i>	59	
<i>animation*</i>	84		<i>ecology and environmental biology</i>	68	
<i>anthropology*</i>	98		<i>economics*</i>	60	
<i>applied mathematics</i>		187	<i>editing</i>	83, 84	
<b>Art</b>		<b>139</b>	<i>education/teacher certification*</i>	63	131
<i>art history*</i>	87		<b>Electrical Engineering</b>		<b>160</b>
<i>arts management</i>		140	<i>electrical engineering*</i>		161
<i>behavioral neuroscience</i>	97		<b>Electrical Engineering Technology</b>		<b>162, 165</b>
<b>Biochemistry</b>	<b>66</b>	<b>141</b>	<i>electrical engineering Technology*</i>		166
<b>Biology</b>	<b>68</b>	<b>142</b>	<i>elementary education</i>	91	
<i>biology*</i>	69	145	<i>elementary education and special education</i>	92	
<i>biotechnology</i>		144	<i>English and American literature</i>	79	
<i>British studies</i>		174	<b>English Language and Literature</b>	<b>79</b>	<b>168</b>
<i>British studies*</i>	59	133, 177	<i>English language and literature*</i>	81	134, 170
<i>broadcasting</i>		152	<i>entertainment and business management*</i>	60	
<i>broadcasting*</i>	73		<b>Entrepreneurship</b>	<b>110</b>	
<b>Business Administration</b>	<b>109</b>	<b>109</b>	<i>entrepreneurship*</i>	105, 106, 110	
<i>business administration*</i>	106	106	<i>environmental science</i>		145, 184
<i>cardiovascular sonography</i>		192	<i>environmental science*</i>		145
<i>cell and molecular biology</i>	68		<b>Film and Animation</b>	<b>81</b>	
<b>Chemistry</b>	<b>69</b>	<b>146</b>	<i>film production</i>	83, 84	
<i>chemistry</i>		144	<i>film production*</i>	85	
<i>chemistry*</i>	69		<b>Finance</b>	<b>111</b>	<b>111</b>
<i>children's studies*</i>	59		<i>finance*</i>	105, 111	105, 111
<i>cinema studies*</i>	85		<i>financial mathematics</i>	94	
<i>cinematography</i>	82, 84		<i>financial planning and wealth management</i>	111	111
<b>Civil Engineering</b>		<b>147</b>	<i>financial planning and wealth management*</i>	105, 106, 111	105, 106, 111
<b>Civil Engineering Technology</b>		<b>162, 163</b>	<b>Fine Arts</b>	<b>86</b>	<b>170</b>
<b>Clinical Laboratory Sciences</b>	<b>71</b>	<b>150</b>	<i>fine art techniques*</i>		141
<i>clinical social work</i>		200	<i>forensic psychology</i>		200
<i>clinical social work*</i>		201	<i>forensic psychology*</i>		201
<b>Communication</b>		<b>151</b>	<i>forensics*</i>	60	
<i>communication*</i>	73	152	<i>French language*</i>	57	
<b>Communication Studies</b>	<b>71</b>		<i>game and mobile application development</i>		155
<i>comparative government and politics</i>		199	<i>game development</i>	76	
<i>computer animation*</i>		140	<i>gender and sexuality studies*</i>		134, 178
<i>computer art and design</i>		140	<i>gender studies*</i>	61	
<i>computer forensics*</i>		133, 158, 182	<i>general</i>		172
<i>computer graphics*</i>		140	<i>generalist art*</i>		141
<b>Computer Science</b>	<b>75</b>	<b>153</b>	<i>geography*</i>	57	
<i>computer science</i>	93		<i>German language*</i>	57	
<i>computer science*</i>	76	156	<i>global and cultural studies</i>		175
<b>Construction Engineering Technology</b>		<b>162, 164</b>	<i>global and cultural studies*</i>		135, 178
<i>consumer psychology</i>		200	<i>global gaming management</i>	120	120
<i>convergent journalism</i>		152	<i>globalization and society*</i>	61	
<i>convergent journalism*</i>		152	<i>global politics</i>	88	
<b>Creative Writing</b>	<b>77</b>		<b>Government and Law</b>	<b>88</b>	
<i>creative writing*</i>	78	134, 170	<i>government and law*</i>	61, 88	
<b>Criminal Justice</b>		<b>157</b>	<i>graphic art and design</i>		140
<i>criminal justice*</i>		158	<b>Graphic Design</b>	<b>88</b>	
<b>Criminology</b>	<b>78</b>		<i>graphic design*</i>	90	
<i>criminology*</i>	79		<b>Health Information Management</b>		<b>171</b>
<i>cybersecurity</i>	75		<i>health science completion degree</i>		138
<i>cybersecurity and information assurance</i>		155	<b>Health Studies</b>		<b>172</b>
<i>dance studies*</i>	101		<b>History</b>	<b>91</b>	<b>173</b>

# Majors, Concentrations, Minors

Majors, concentrations and minors are listed below with pages (*Concentrations and minors are in lower case and italic type, minors are with an asterisk\**).

	FLORHAM CAMPUS	METROPOLITAN CAMPUS		FLORHAM CAMPUS	METROPOLITAN CAMPUS
<i>history*</i>	92	173	<i>physics*</i>	57	
<i>hospitality management</i>	119	119	<i>playwriting</i>	100	
<b>Hotel and Restaurant Management</b>	<b>116</b>	<b>116</b>	<i>political communication*</i>	74	
<i>human communication</i>	71		<b>Political Science</b>		<b>198</b>
<b>Humanities</b>	<b>92</b>	<b>174</b>	<i>political science*</i>		199
<i>humanities*</i>	92		<i>political thought and theory</i>		199
<i>human physiology</i>		145	<i>prelaw*</i>	62	
<i>human resource management</i>	112	112	<i>prepharmacy</i>	67, 68	147
<i>human resource management*</i>	105, 106, 112	105, 106, 112	<i>print design</i>	89	
<i>illustration</i>	88		<i>printmaking*</i>		141
<b>Individualized Studies</b>	<b>118</b>	<b>118</b>	<b>Psychology</b>	<b>97</b>	<b>200</b>
<i>individualized</i>	121	121	<i>psychology*</i>	98	201
<i>information security administration</i>		156	<i>public relations</i>	72	
<i>information systems</i>		109	<i>public relations*</i>	74	
<b>Information Technology</b>		<b>179</b>	<i>Puerta al Futuro® (Latino studies)</i>		122
<i>information technology*</i>		182	<i>pure mathematics</i>		187
<b>Interdisciplinary Studies</b>	<b>120</b>	<b>120</b>	<b>Radiography</b>		<b>202</b>
<b>International Affairs</b>		<b>183</b>	<b>Radiologic Technology</b>		<b>202</b>
<i>international affairs*</i>		183	<i>radiologic technology</i>	65	
<i>international business</i>	109	109	<i>radio management</i>		152
<i>international relations</i>		199	<i>religion and society*</i>		136
<i>Italian language*</i>	57		<i>romance languages*</i>		137
<i>Italian studies*</i>	61		<b>Science</b>		<b>203</b>
<i>Japanese studies*</i>	62		<i>science</i>		172
<i>journalism*</i>	73		<i>science*</i>		204
<i>Latin-American studies*</i>	62		<i>screenwriting/dramatic writing*</i>	63, 85	
<i>Latino Promise®</i>		122	<i>secondary education</i>	91	
<i>leadership</i>	112	112	<i>security and forensics</i>		182
<i>leadership*</i>	105, 106, 112	105, 106, 112	<i>social justice advocacy*</i>		159
<i>leadership in a global society</i>	121	121	<b>Sociology</b>	<b>98</b>	
<i>legal studies</i>	88		<i>sociology*</i>	98	
<i>legal studies*</i>		135, 159, 199	<i>Spanish language*</i>	58	
<b>Liberal Arts</b>	<b>122</b>	<b>122</b>	<b>Spanish Language and Culture</b>		<b>204</b>
<i>liberal studies</i>		176	<i>Spanish language and culture*</i>		205
<b>Management</b>	<b>112</b>	<b>112</b>	<i>specialized studies</i>	120	120
<b>Marine Biology</b>		<b>183</b>	<i>specific discipline*</i>		186
<i>marine biology*</i>		185	<i>speech*</i>		153
<b>Marketing</b>	<b>113</b>	<b>113</b>	<b>Sports Administration</b>	<b>123</b>	<b>123</b>
<i>marketing*</i>	105, 114	105, 114	<i>sports media studies*</i>		137, 153
<i>mathematical statistics*</i>	94		<i>studio arts</i>	86	
<b>Mathematics (B.A.)</b>	<b>93</b>	<b>185</b>	<i>studio arts*</i>	87	
<b>Mathematics (B.S.)</b>		<b>186</b>	<i>sustainability</i>	121	121, 176
<i>mathematics*</i>	94	188	<i>sustainability*</i>		137, 179
<i>mathematics for cyberscurity*</i>	94		<i>sustainability management</i>	109	109
<i>mathematics for the business world*</i>	94		<i>sustainability management*</i>	105, 106, 113	105, 106, 113
<b>Mechanical Engineering</b>		<b>188</b>	<i>teacher certification</i>	63	131
<b>Mechanical Engineering Technology</b>		<b>162, 167</b>	<i>technology and society</i>	121	121
<i>mechanical engineering technology*</i>		168	<i>theater*</i>		170
<b>Medical Imaging Sciences</b>	<b>95</b>	<b>191</b>	<b>Theater Arts</b>	<b>99</b>	
<i>medical laboratory science (medical technology)</i>	71		<i>theater arts*</i>	102	
<i>medical laboratory science(s)</i>		150	<i>theater studies</i>	101	
<b>Medical Technology</b>		<b>193</b>	<i>3D animation</i>	81, 84	
<i>mental health</i>		200	<i>3D video game animation*</i>	86	
<i>MiRaero (Korean studies)</i>		122	<i>TV/digital editing and production</i>		152
<i>multimedia journalism</i>	72		<i>2D animation</i>	81, 84	
<i>music*</i>	101		<i>vascular technology</i>	95	
<i>musical theater</i>	100		<i>video game animation</i>	84	
<i>musical theater*</i>	101		<i>web design</i>	90	
<i>network and system administration</i>		181	<i>web design*</i>	90	
<b>Nursing</b>	<b>194</b>	<b>194</b>	<i>web-development technology</i>		181
<i>organizational behavior/human resources</i>		201	<i>website design and development*</i>		182
<i>painting/drawing</i>		140	<i>women's leadership</i>	121	121
<i>personalized*</i>	63		<i>world literature</i>	80	
<i>pharmaceutical biostatistics</i>		187			
<b>Philosophy</b>	<b>96</b>				
<i>philosophy*</i>	96	136			

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# Maxwell Becton College of Arts and Sciences

## Majors

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### Allied Health Technologies (B.S.A.H.T.)

*Concentration: radiologic technology*

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### Biochemistry (B.S.)

*Concentration: prepharmacy*

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### Biology (B.S.)

*Concentrations: anatomy and physiology, cell and molecular biology, ecology and environmental biology, prepharmacy*

*Minor: biology*

---

### Chemistry (B.S.)

*Minor: chemistry*

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### Clinical Laboratory Sciences (B.S.C.L.S.)

*Concentration: medical laboratory science (medical technology)*

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### Communication Studies (B.A.)

*Concentrations: human communication, multimedia journalism, public relations*

*Minors: advertising, broadcasting, communication, journalism, political communication, public relations*

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### Computer Science (B.S.)

*Concentrations: cybersecurity, data mining, game development*

*Minor: computer science*

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### Creative Writing (B.A.)

*Minor: creative writing*

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### Criminology (B.A.)

*Minor: criminology*

---

### English Language and Literature (B.A.)

*Concentrations: English and American literature, world literature*

*Minor: English language and literature*

---

### Film and Animation (B.A.)

*Concentrations: 2D animation, 3D animation, cinematography, directing, editing, film production, video game animation*

*Minors: animation, cinema studies, film production, screenwriting/dramatic writing, 3D video game animation*

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### Fine Arts (B.A.)

*Concentration: studio arts*

*Minors: art history, studio arts*

---

### Government and Law (B.A.)

*Concentrations: global politics, legal studies*

*Minor: government and law*

---

### Graphic Design (B.A.)

*Concentrations: illustration, print design, web design*

*Minors: graphic design, web design*

---

### History (B.A.)

*Concentrations: elementary education, elementary education and special education, secondary education*

*Minor: history*

---

### Humanities (B.A.)

*Minor: humanities*

---

### Mathematics (B.A.)

*Concentrations: actuarial science, computer science, financial mathematics*

*Minors: mathematical statistics, mathematics, mathematics for cybersecurity, mathematics for the business world*

---

### Medical Imaging Sciences (B.S.M.I.S.)

*Concentrations: diagnostic medical sonography, vascular technology*

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### Philosophy (B.A.)

*Minor: philosophy*

---

### Psychology (B.A.)

*Concentration: behavioral neuroscience*

*Minor: psychology*

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### Sociology (B.A.)

*Minors: anthropology, sociology*

---

### Theater Arts (B.A.)

*Concentrations: acting, design and technical theater, directing, musical theater, playwriting, theater studies*

*Minors: dance studies, music, musical theater, theater arts*

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### Discipline Minors

*French language, geography, German language, Italian language, physics, Spanish language*

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### Interdisciplinary Minors

*Advertising, African-American studies, British studies, children's studies, dramatic literature and performance, economics, entertainment and business management, forensics, gender studies, globalization and society, government and law, Italian studies, Japanese studies, Latin-American studies, personalized, prelaw, screenwriting/dramatic writing*

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### Teacher Certification

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# General Curricular • College Core Curriculum

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Florham Campus, Madison, New Jersey Geoffrey S. Weinman, Dean

The mission of the Maxwell Becton College of Arts and Sciences is to develop the intellectual, creative and career potential of our diverse student body by offering a demanding curriculum in a caring and supportive environment. The College is committed to being a superior teaching institution.

Through its curriculum, Becton College aims to develop in students the skills, intellectual orientation and knowledge to achieve their educational, professional and personal goals.

The flexibility of the Becton College General Education curriculum allows each student to develop an individualized program that combines major and minor fields with clusters of related electives. The curricular distribution requirement assures an understanding of the methods used by disciplines in the humanities, social and behavioral sciences, creative arts and laboratory sciences. Students may select courses suited to their level of preparation and, when applicable, apply them to majors, major corequisites, minors or elective clusters. Because the opportunities are so varied, students should work closely with their advisers as they plan their choices.

Total University Core/Becton College general education requirements range between 46 to 48 credits, depending upon the student's program and assuming no waivers. The minimum number assumes that students will select courses that fulfill dual requirements. The maximum assumes that the student will not select any courses that satisfy more than one requirement.

The curriculum culminates in the student's academic major, which is designed to give deeper and more specialized knowledge and abilities in a specific discipline. The major calls for advanced application of the fundamental skills, intellectual orientation and multidisciplinary perspectives acquired in the College general education requirements program.

Many of the majors listed on pages 51–52 also offer special areas of concentration, described in the appropriate section by major. Several accelerated programs are offered as well. They are: Bachelor of Arts in communication studies/Master of Arts in communication (page 214), Bachelor of Arts in psychology/Master of Arts in industrial/organiza-

tional psychology (page 223), Bachelor of Arts/Master of Public Administration (page 207), Bachelor of Arts or Science/Master of Arts in Teaching (page 208), Bachelor of Science in biology, chemistry or biochemistry/Doctor of Pharmacy (pages 244, 257, 266), Bachelor of Science in biochemistry, biology or chemistry/Doctor of Osteopathic Medicine (page 255), Bachelor of Science in biology/Doctor of Dental Medicine (page 251), Bachelor of Science in biology/Doctor of Chiropractic (page 249) Bachelor of Science in biology/Doctor of Podiatric Medicine (page 263), Bachelor of Science in biology/Doctor of Veterinary Medicine (page 264) and Bachelor of Science in biology/Medical Doctor (pages 253–255).

**Seven- and Eight-year Combined Degree Programs:** Students with a strong SAT score and high school grade point average (GPA), with an interest in attending a health professional school, may be eligible to participate in one of the University's combined degree programs. Qualified students initially receive a conditional acceptance into one of the programs and then apply for final acceptance to move on to the professional school in the third year at FDU, once certain GPA, standardized test and course requirements are met. Typically, students in the combined degree programs complete three years at FDU in an accelerated biology or chemistry major, depending on the advanced-degree requirement, and then begin their studies at the partner institution in the fourth year. The first year of professional school counts towards the FDU degree. Consult with a prehealth adviser for a list of current combined degree programs. Past programs have included a combined B.S./D.M.D. with Rutgers School of Dental Medicine, combined degree programs with Ross University Schools of Medicine and Veterinary Medicine, New York College of Podiatric Medicine and various chiropractic colleges including Logan College of Chiropractic.

**Preprofessional Studies in the Health Sciences at FDU:** Students preparing for careers in medicine, dentistry or veterinary medicine can major in any area, but should complete certain courses required for entry into professional school in the health sciences. A list of required courses can be obtained from the Advising Center. The required courses include taking biology and chemistry with

lab in the freshman year. Students should attend an information session held once a semester by the preprofessional adviser on other ways to prepare for professional school including volunteering, summer programs and standardized-test preparation.

In the junior year, students have the option of preparing a portfolio for the Health Preprofessional Committee, consisting of faculty from biology, chemistry and psychology. The committee evaluates the student's academic performance and overall preparedness for professional school, and then composes a letter of recommendation on the student's behalf. The contents of the letter remain confidential, and the student has the option of having the letter sent or not sent on to the professional school to be included in the application. Most students applying for professional school during their time at FDU apply nine to 12 months before graduation, depending on school deadlines.

Students with questions on applying to professional schools in the health sciences can contact Dr. James Salierno at [salierno@fdu.edu](mailto:salierno@fdu.edu) or (973) 443-8776. Qualified students have the opportunity to join the University Honors Program, see page 50.

## General Curricular Requirements

Candidates for the degrees of Bachelor of Arts or Bachelor of Science must complete a minimum of 120 credits of course work, including completion of the College's general education requirements, which requires from 46 to 48 credits, depending on exemptions, distributed as outlined on the next page. Programs leading to the Bachelor of Arts degree require from 30 to 45 credits in an area of concentration. The programs for the Bachelor of Science degree require a greater number of credits. Minors usually consist of 15 credits and are available in most disciplines in the College. The College also offers interdisciplinary minors. In addition to completing the requirements for the College general education requirements and for their majors, students shall complete such additional credits in free electives to meet the minimum requirement of 120 credits.

## College General Education Requirements

Below is the core curriculum (general education requirements) for those stu-

# College Core Curriculum

Maxwell Becton College of Arts and Sciences  
Florham Campus

dents entering Becton College in the fall semester of 2017 and thereafter.

A comprehensive General Education requirement is indispensable to a liberal arts experience.

## **College Writing (6 credits)**

The basic writing skills for all Becton College students are ENGW1001 Composition I: Rhetoric and Inquiry and ENGW1002 Composition II: Research and Argument. ENGW1001 is a prerequisite for ENGW1002. The second course should be completed within the student's first 64 credits.

Based on placement scores, some students may be required to complete ENGW1000 Introduction to Composition to achieve the prerequisite skills needed for enrolling in ENGW1001 Composition I: Rhetoric and Inquiry.

## **Quantitative Analysis (6–7 credits)**

Students must complete 6 to 7 credits of quantitative analysis with one course from the following: MATH1107 Precalculus, MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods, along with an additional course selected in consultation with an academic adviser in the student's major.

Students majoring in biology, chemistry, computer science or mathematics should register for either MATH1107 Precalculus or MATH1203 Calculus I, as determined by placement examination scores.

Those with placement scores below the standards for the above four courses (MATH1107, MATH1126, MATH1128, MATH1203) must complete courses in prerequisite skills. Students who achieve a satisfactory score on the SAT or placement test may waive 3 credits of the Quantitative Analysis requirement.

## **Public Speaking (3 credits)**

This requirement may be fulfilled through successful completion of COMM2099 Professional Communications or SPCH1107 Fundamentals of Speech.

## **Ethical and Moral Analysis (3 credits)**

Specific courses in ethics meet this requirement.

## **Modern Language (3–4 credits)**

All Becton students must demonstrate proficiency in a foreign language at the 2000 level either by completing that course in their selected language or by demonstrating proficiency at that level on

a placement test. The department of literature, language, writing and philosophy currently offers instruction at the introductory 1002 level for Arabic, Spanish, French, Italian, German, Chinese and Japanese.

## **Humanities (6 credits)**

Courses in disciplines such as art history, cinema, history, literature, music-humanities, philosophy and theater-humanities meet this requirement. One course must be at the 2000-level or above.

## **Social and Behavioral Sciences (6 credits)**

Courses in disciplines such as African-American studies, anthropology, criminology, communication studies, economics, geography, government and law, psychology and sociology meet this requirement. One course must be at the 2000-level or above.

## **Natural Sciences (7 credits)**

Courses from multiple disciplines including biology, chemistry, computer science and physics meet this requirement.

## **Creative and Expressive Arts (3 credits)**

Students select from courses in animation, art, dance, graphic design, film, music and theater to meet this requirement.

## **Global and Comparative Studies (3 credits)**

Students select from a wide range of courses drawn from such disciplines as anthropology, art history, criminology, film, geography, history, literature, languages and theater.

## **University Requirements (8 credits)**

	Credits
UNIV1001 Transitioning to University Life.....	1
UNIV1002 Preparing for Professional Life.....	1
UNIV2001 Cross-cultural Perspectives.....	3
UNIV2002 Global Issues.....	3

## **The Major**

Each student must select a major, consisting of group-related courses in an area of specialization, before entering the fifth or sixth semester. The courses in a major must total at least 30 credits including

introductory-level courses, but may not total more than 45 in a single discipline for programs leading to the Bachelor of Arts degree. A greater degree of specialization is allowed in programs leading to the Bachelor of Science degree. Details and explanations of the various major programs are set out in the following pages. A 2.33 cumulative grade point ratio in the major and, if applicable, in the second major is required in the Maxwell Becton College of Arts and Sciences in order to graduate.

## **Electives**

Students may wish to take introductory courses in their major field of interest before the fifth or sixth semester. Other electives may be chosen from courses offered in any of the undergraduate colleges if prerequisites can be met. Qualified students may request permission to elect graduate courses in their seventh and eighth semesters.

## **ROTC (Reserve Officers' Training Corps)**

The College of Arts and Sciences will accept 17 credits in military science as electives counting toward the 120-credit minimum required for the bachelor's degree.

## **Becton College Learning Communities**

The Maxwell Becton College of Arts and Sciences offers several opportunities for incoming students to participate in designated Learning Communities (LC) as part of their first-year experience. LCs make use of a cohort system whereby students will take introductory classes in the major (and, in some cases, General Education courses) with other incoming students who either share the major or the area of interest. Students are also placed into an LC-specific section of UNIV1001 Transitioning to University Life. UNIV1001 is the first course in the University Core program, which provides support for the transition to University life.

In addition to completing course work with a group of like-minded students, LCs also engage in activities as a group outside of the classroom. These activities may include field trips or visits from invited guests with expertise in their respective fields, hands-on and project-based research with faculty, as well as engaging with the local community through service projects and events.

# Honors Programs • Double Majors and Minors

Maxwell Becton College of Arts and Sciences  
Florham Campus

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Overall, Learning Communities offer a unique opportunity to work — both inside and outside the classroom — with both full-time faculty and fellow students in their major during their first year of study at the Florham Campus. Interested students will have the opportunity to join a Learning Community (topics and disciplines of the Learning Communities rotate from year to year) when preparing their first-year schedule.

## **Independent Study**

Juniors and seniors may take from 1 to 3 credits each semester in individual intensive study under the direction of a specific faculty member, according to the criteria set forth for such independent study by the department concerned. Consent of the instructor, department chairperson and dean is required.

Students may count no more than 12 credits of independent study toward the completion of the minimum requirements of their majors or the minimum requirements for their degrees. Students may elect independent study in any of the discipline offerings of the College.

## **Honors Programs**

### **Discipline-oriented Becton Honors Program**

The honors program at FDU's Maxwell Becton College of Arts and Sciences is the right choice for the student whose goal is excellence. The enhanced honors curriculum provides in-depth study for those striving for proficiency in their major fields of study. In FDU's tradition of excellence, students develop a strong foundation of skills that will benefit them in many future endeavors.

A student may select the Becton Honors Program in most of the College's majors, including:

- Biology
- Chemistry
- Computer Science
- Creative Writing
- English Language and Literature
- Film and Animation
- Fine Arts
- Government and Law
- History
- Mathematics
- Psychology
- Sociology

Students in the Becton College Honors Program enjoy a supportive and challenging academic atmosphere. The demanding and rigorous curriculum is complemented by extensive personalized attention that helps tailor students' studies to their needs. Students work closely with faculty members in honors seminars, in classes and on a special honors project.

Students in the honors program:

- Engage in self-directed scholarly inquiry and research;
- Acquire sophisticated knowledge of and skills in their chosen field;
- Prepare for high levels of achievement in advanced study and professional life;
- Learn to explore new ideas and take intellectual risks;
- Develop an enhanced awareness of their discipline's standards and ethics;
- Cultivate habits of independent thought and creativity; and
- Strive for objectivity in scholarly discourse and analysis.

Honors students also are encouraged to take advantage of a unique cultural, academic and social experience by spending a semester at the University's Wroxton College in England. Housed in a 17th-century Jacobean mansion, Wroxton offers a diverse range of studies, a highly qualified, all-British faculty and the enlightenment of studying abroad. While there, students can venture on exciting cultural and recreational excursions to places such as Oxford, Stratford-upon-Avon, London and mainland Europe.

### **Other Honors Programs**

Students interested in a more broadly based honors experience rather than honors in a major can choose the University Honors Program. It has an interdisciplinary focus building on honors courses in the University Core and has a separate application process. (See page 50.)

The living-learning communities for residential freshman students focus on developing students' interest and knowledge in special studies areas.

### **Double Majors and Minors**

The College of Arts and Sciences offers students the opportunity to increase the flexibility and marketability of their undergraduate curriculum by combining their majors with other disciplines to form double majors and minors. In addition to the

traditional single-major program, the College offers opportunities for:

- double majors, see this page
- discipline minors, see this page
- interdisciplinary minors, see page 58 and
- personalized minors, see page 63.

As recent literature on developments in the workplace suggest, students who have a "portfolio of marketable skills" will be more employable in the future. Combining, for example, a major in government and law with a second major in psychology or with minors in computer science or philosophy positions a student well for employment in fields that require analytical or technical skills and knowledge of human motivation and social structure. Combining a major in the School of the Arts with a minor in communication could position a student for a career in arts management.

The College faculty suggests that students, in consultation with their advisers, give careful thought to strategic combinations of courses and disciplines.

### **Double Majors**

Double majors involve meeting the requirements of two different disciplines. This is often possible if most free-elective credits are used for the second major. Courses used to satisfy the College core requirements may in some cases satisfy second major requirements. Completing a double major is accomplished more easily in the humanities and the social and behavioral sciences in which major credits usually number between 30 and 42.

### **Discipline Minors**

Discipline minors exist in most disciplines and in most departments. Discipline minors usually consist of 15 credits in a specific discipline. Becton College offers minors in the following disciplines: animation, anthropology, art history, biology, chemistry, communication, computer science, creative writing, economics, film, French, geography, German, government and law, graphic design, history, Italian, mathematics, music, philosophy, physics, psychology, sociology, Spanish and theater arts. The description of each minor is usually provided in the section of the major or a concentration. Consult the Index for specific page numbers.



# Double Majors and Minors

Maxwell Becton College of Arts and Sciences  
Florham Campus

## French Language Minor

The 15-credit French language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in French while also having a fair grasp of French literature and culture.

Students who are assessed as sufficiently advanced in the language so as to opt out of one or more of the required language courses may choose from the array of French (FREN) courses, with work done in the target language. The student who takes all four language courses is left with one additional course needed to complete the minor; this course can also be selected from the available FREN courses that are offered regularly, with work done in the target language. At most, one course may be taken in English.

### Required Courses (12 credits)

	Credits
FREN1001	
Beginning French I.....	3
and	
FREN1007	
French Practicum I*.....	1
FREN1002	
Beginning French II.....	3
and	
FREN1008	
French Practicum II*.....	1
FREN2003	
French Conversation I.....	3
FREN2004	
French Conversation II.....	3

### Elective Course (3 credits)

Choose one from the following:

FREN2005	
French Film.....	3
FREN2008	
Writing in French.....	3
FREN2203	
Contemporary France.....	3
FREN3010	
Advanced French Grammar.....	3
FREN3051	
Sex and Politics in French Literature.....	3
FREN3551	
Topics in French Literature I.....	3
FREN3552	
Topics in French Literature II.....	3

\*Practica, although required for language classes, do not count toward the minor.

## Geography Minor

The geography minor is designed to offer Becton College students 15 credits of relevant geography classes from 1000-, 2000- and 3000-level course offerings.

### Required Course (3 credits)

	Credits
GEOG1102	
Geography and World Issues.....	3

### Electives\* (12 credits)

Choose four from the following:

GEOG1111	
Economic Geography.....	3
GEOG2500	
Global Development: Geographies of Wealth and Poverty.....	3
GEOG2600	
Urban Geography.....	3
GEOG3030	
Surveillance and Security.....	3
GEOG3040	
Capture and Control: Geographies of Detention and Incarceration.....	3

## German Language Minor

Students must complete 15 credits in German courses. Select courses may be taken at partner institutions to complete the minor. Please contact the department of literature, language, writing and philosophy for details and approval.

## Italian Language Minor

The 15-credit Italian language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in Italian while also having a fair grasp of Italian literature and culture.

Students who are assessed as sufficiently advanced in the language so as to opt out of one or more of the required language courses may choose from the array of Italian courses, with work done in the target language. The student who takes all four language courses is left with one additional course needed to complete the minor; this course can also be selected from the available Italian courses that are

\*Additional courses will be added to this list as more course offerings become available.

offered regularly, with work done in the target language. At most, one course may be taken in English.

### Required Courses (12 credits)

	Credits
ITAL1001	
Beginning Italian I.....	3
and	
ITAL1007	
Italian Practicum I*.....	1
ITAL1002	
Beginning Italian II.....	3
and	
ITAL1008	
Italian Practicum II*.....	1
ITAL2003	
Italian Conversation I.....	3
ITAL2004	
Italian Conversation II.....	3

### Elective (3 credits)

Choose one from the following:

ITAL2005	
Italian Cinema.....	3
ITAL3053	
Creating a Nation.....	3
ITAL3055	
The Italian-American Experience.....	3
ITAL3056	
Italy: Land of Migrations.....	3

## Physics Minor

The 18- to 20-credit physics minor is designed for students who enjoy physics and are interested in gaining a broader exposure to physics concepts, experimental techniques and computational paradigms, while at the same time gaining transferable skills and ways of thinking applicable to jobs within their primary field of interest.

### Required Courses (12 credits)

PHYS2003, PHYS2013, PHYS2023	
General Physics with Calculus I.....	4
PHYS2004, PHYS2014, PHYS2024	
General Physics with Calculus II.....	4
PHYS3206, PHYS3216	
Modern Physics (Lecture and Laboratory).....	4

### Electives (6-8 credits)

Select from the following:

PHYS2800	
Sophomore Independent Study.....	1-6
PHYS3210	
Advanced Mechanics.....	3

\*Practica, although required for language classes, do not count toward the minor.

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	Credits
PHYS3220	
Mathematical Methods for	
Physics.....	3
PHYS3240, PHYS3241	
Optics (Lecture and Laboratory).....	4
PHYS3250	
Thermodynamics.....	3
PHYS3277	
Solid State Physics.....	3
PHYS3530	
Electricity and Magnetism I.....	3
PHYS3800	
Junior Independent Study.....	1-6
PHYS4250	
Quantum Mechanics I.....	3
PHYS4401	
Physics Seminar.....	2
PHYS4430	
Selected Studies in Physics.....	1-3
PHYS4800	
Senior Independent Study	
in Physics.....	1-6

## Spanish Language Minor

The 15-credit Spanish language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in Spanish while also having a fair grasp of Spanish literature and culture.

Students who are assessed as sufficiently advanced in the language so as to opt out of one or more of the required language courses may choose from the array of Spanish courses, with work done in the target language. The student who takes all four language courses is left with one additional course needed to complete the minor; this course can also be selected from the available Spanish courses that are offered regularly, with work done in the target language. At most, one course may be taken in English.

### Required Courses (12 credits)

SPAN1001	
Beginning Spanish I.....	3
and	
SPAN1007	
Spanish Practicum I*.....	1

	Credits
SPAN1002	
Beginning Spanish II.....	3
and	
SPAN1008	
Spanish Practicum II*.....	1
SPAN2003	
Spanish Conversation I.....	3
SPAN2004	
Spanish Conversation II.....	3

### Elective (3 credits)

Choose one from the following:	
SPAN2006	
Music in Spanish: Writing and	
Conversation.....	3
SPAN2007	
Hispanic Current Events: Writing	
and Conversation.....	3
SPAN2008	
Hispanic Film: Writing and	
Conversation.....	3
SPAN3561	
Topics in Latin-American	
Literature I.....	3
SPAN3562	
Topics in Latin-American	
Literature II.....	3

## Interdisciplinary Minors

Interdisciplinary minors incorporate courses and faculty from various disciplines within the college. Becton College currently offers a wide array of interdisciplinary minors listed on this page to page 63, but others are in various stages of proposal and development.

Students are encouraged to work with advisers and to check the University's web pages to keep abreast of new minors that might satisfy their academic interests.

### Advertising Interdisciplinary Minor

The advertising minor is designed for students interested in studying the theoretical, practical and creative elements that go into the creation of compelling and successful advertisements and advertising campaigns. The philosophy behind the minor builds on the recognition that the professional domain of advertising draws from many varied disciplines.

First, students must develop a foundational understanding of the concepts and theories included in the areas of advertising and marketing.

Then they must develop and polish their theoretical understanding and professional skills in the areas of computer graphics, desktop publishing and basic video making — they need to understand all the theoretical and creative elements that go into the creation of both print ads and commercials.

Finally, students should be given the opportunity to develop their skills with courses that will enhance their knowledge regarding account management, campaign planning, implementation and evaluation. For information contact the department of communication studies or the School of the Arts.

Note: In order to fulfill the advertising minor, students must select no more than 12 credits in their major discipline. This policy is meant to ensure that students are taking full advantage of the interdisciplinary nature of the minor.

Required Courses (9 credits)	Credits
CGD1313	
Creative Imagery with Photoshop.....	3
CGD1314	
Illustrator Graphics and Design.....	3
COMM2221	
Advertising Principles.....	3

### Elective Courses (6 credits)

<i>Art</i>	
CGD2370	Print Layout
CGD3363	Interactive Publishing
<i>Communication</i>	
COMM3243	Advanced Advertising and Promotions
COMM4001	Communication Internship I
<i>Film and Animation</i>	
ANIM1750	Motion Graphics with After Effects®
FILM1005	Filmmaking I: Basic Production
<i>Marketing</i>	
MKTG2120	Principles of Marketing
MKTG4272	Consumer Behavior
MKTG4365	Marketing Communications

NOTE: The identification and inclusion of additional suitable elective courses will continue on an ongoing basis.

## African-American Studies Interdisciplinary Minor

The minor in African-American studies exposes students to a program of study concerning African-American culture, life and history in the United States. By expos-

\*Practica, although required for language classes, do not count toward the minor.

\*Practica, although required for language classes, do not count toward the minor.

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ing students to an interdisciplinary study of African Americans (encompassing history, government and law, sociology, literature, music and anthropology), the minor is intended to educate students on how African Americans helped shape American history and culture and continue to transform it today. The minor also emphasizes the relevance of Africa in understanding the attitudes, circumstances and experiences of African Americans. The core course, AFAM2001 Introduction to African-American Studies, will ground students in the fundamentals of interdisciplinary study. In the electives, the students will learn that the African-American experience is not only an integral part of the United States experience but also integral to understanding the world at large. For information contact the department of literature, language, writing and philosophy.

### Required Course (3 credits)

AFAM2001 Introduction to African-American Studies

### Select Elective Courses (12 credits)

Choose four of the 3-credit courses below to include at least one each from history, literature and sociology.

#### African-American Studies

AFAM3357 Sociology of the African-American Family  
AFAM3358 Sociology of the Black Church  
AFAM3359 Sociology of Race, Rap and Religion

#### History

HIST2350 Colonial and Revolutionary America  
HIST2351 The United States in the Early Republic  
HIST2352 Civil War and Reconstruction

#### Literature

LITS3013 African-American Literature  
LITS3202 American Writers: Race in Black and White

#### Music History

MUSIH1021 Popular Music and Jazz

### Related Elective Courses (3 credits)

Choose any one of the 3-credit courses below:

ANTH2335 African Peoples and Cultures  
COMM2866 Women and Minorities in Media  
HIST2202 Introduction to African History

HIST2402 Atlantic Worlds  
HIST4205 Seminar: Race and Empire  
LITS3071 Contemporary African Literature and Culture

### British Studies Interdisciplinary Minor

The 15-credit British studies minor is designed to offer Becton College students who study for the fall/spring semester at Wroxton College the opportunity to earn a minor that recognizes Wroxton.

#### Wroxton College Courses

Choose any 12 to 15 credits taken during a fall or spring semester to qualify for the minor, but *excluding* UNIV2001 Cross-cultural Perspectives.

#### Becton College/Wroxton College Courses

Choose either 3 or 6 of the following credits, a program offered jointly every odd year with course sessions at Becton College followed by two weeks at Wroxton with site tours in England and France. One can also use an authorized substitute course from another Wroxton summer program.

HIST2424 Western Front in World War I  
HIST2425 Western Front in World War II

#### Becton College Courses

Choose any three of the following credits beyond the 12 to 15 relevant credits taken at Wroxton. One can also use an authorized substitute course.

HIST3350 U.S. as a Continental Power, 1607–1898  
LITS3020 18th-century British Literature  
LITS3021 Victorian Age  
LITS3054 Romanticism  
LITS3073 Irish Literature  
LITS3201 British Writers  
LITS3212 Chaucer  
LITS3213 Shakespeare I  
LITS3214 Shakespeare II  
LITS3230 Jane Austen: Fiction and Film  
LITS3301 The English Language

Note: Students who previously declared an 18-credit minor in this area must complete a “Declaration of Minor” form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor **MUST** complete all requirements affiliated with the 15-credit minor.

### Children’s Studies Interdisciplinary Minor

The children’s studies minor provides students with a multidisciplinary understanding of the idea of childhood in human society. Using the disciplinary perspectives of literature, psychology, sociology and anthropology, the minor grounds students in an understanding of childhood as preparation for employment in child services and advocacy or advanced study in the fields of education, literature, psychology, sociology and anthropology. Offered jointly by the department of literature, language, writing and philosophy; the department of communication studies; and the department of social sciences and history, the minor requires 15 credits. Students select five 3-credit courses from the list below, making selections from at least three different disciplines.

#### Anthropology

ANTH3102 Anthropology of Children and Childhood

#### Communication

COMM3014 Family Communication

#### Literature

LITS3303 World Folk Literature  
LITS3311 Children’s Literature  
LITS3312 Young Adult Literature

#### Psychology

PSYC3001 Human Development (Child)  
PSYC3302 Human Development (Adolescent)

#### Sociology

SOCI2316 Sociology of the Family  
SOCI2317 Children and Society  
SOCI3310 Juvenile Delinquency  
SOCI3344 Schools and Society

### Dramatic Literature and Performance Interdisciplinary Minor

The dramatic literature and performance minor provides grounding in theatrical history, theory and performance practices as a cultural enrichment and as preparation for advanced study or employment in the theater. This minor is offered jointly by the department of literature, language, writing and philosophy and the School of the Arts and consists of 18 credits.

3 credits of *Shakespeare* Credits  
LITS3213 Shakespeare I  
or  
LITS3214 Shakespeare II.....3

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## 3 credits of Development Theater

	Credits
THEAH1201	
Development of the Theater: Ancient to Elizabethan	
or	
THEAH1202	
Development of the Theater: Restoration to Today.....	3

## Two of the following 3-credit literature courses

LITS3101	Greek and Roman Drama
LITS3102	Studies in Drama
LITS3103	Modern Drama: 1880–1930
LITS3104	Contemporary American Drama
LITS3105	Contemporary European Drama
LITS3106	Contemporary World Drama
LITS3213	Shakespeare I
or	
LITS3214	Shakespeare II (In addition to the 3 credits selected from Shakespeare required above)

## 6 credits from the following 3-credit dance and theater courses

DAN1320	Beginning Dance I
THEA1203	Basic Acting I
THEA2005	Directing I
THEA2339	Musical Theater Workshop
THEA3336	Acting for Film and Television
THEAH1201	Development of the Theater: Ancient to Elizabethan
or	
THEAH1202	Development of the Theater: Restoration to Today (In addition to the 3 credits selected from Development of Theater required above)
THEAH2255	Playwriting and Dramatic Structure

## Economics Interdisciplinary Minor

The economics interdisciplinary minor introduces students to the basic concepts, theories, modeling approaches and methods of economics. The 15-credit minor consists of two required field courses, a required methodology course and a modeling course that can be satisfied by taking one of two courses and an elective from economics or finance.

## Required Courses (12 credits)

	Credits
ECON2001	
Introduction to Microeconomics.....	3
ECON2102	
Introduction to Macroeconomics.....	3
ECON2250	
Economic Methods.....	3
ECON4844	
Game Theory	
or	
ECON4845	
Agents in the Matrix: Creating and Analyzing Agent-based Models.....	3

## Elective (3 credits)

One course to be selected from the 2000- or higher-level offerings in economics (ECON) or finance (FIN).

## Entertainment and Business Management Interdisciplinary Minor

The entertainment and business management interdisciplinary minor allows students to focus on the unique requirement of developing a product for the entertainment and/or communication industries. Aspects of production management and communication are addressed, and the student will learn about the business role of the producer, from acquiring a product, through production and distribution. Skills involved and developed include leadership, communication, marketing and accounting.

## Required Courses (9 credits)

ENTR2700	
Introduction to Entrepreneurship and Innovation.....	3
FILM3426	
Producing Movies.....	3
MKTG2120	
Principles of Marketing.....	3

## Electives (6 credits)

Select from the following:	
BUS11000	
Foundations of Business.....	3
COMM2099	
Professional Communications.....	3
FILM3427	
Distributing Movies and Media.....	3
MKTG3360	
Digital Marketing*.....	3

\*Prerequisite is MKTG2120 Principles of Marketing.

## Forensics Interdisciplinary Minor

The forensics interdisciplinary minor is a 16-credit minor designed for students who are interested in how physical and psychological evidence resolve issues involving criminal behavior, crime scenes and criminal investigations. This highly popular field spans many disciplines, drawing from psychology, sociology, government and law, chemistry, biology, literature and philosophy.

Students are required to take PSYC3360 Forensic Psychology and an introductory science course with a forensics component (4 credits). Students can then select the remaining 9 credits from a broad array of elective courses in multiple disciplines.

In order to fulfill the minor, students are required to take no more than 3 credits of their elective courses in any single discipline.

## Required Courses (7 credits)

	Credits
BIOL1005	
Current Topics in Biology (includes forensic component)	
or	
BIOL1202	
Introduction to Molecules, Cells and Genes (includes DNA analysis information and forensic science laboratory exercise).....	4
PSYC3360	
Forensic Psychology.....	3

## Elective Courses (9 credits)

Select three courses from the following, with no more than 3 credits within a single discipline:

<i>Biology</i>	
BIOL1205	Anatomy and Physiology I
BIOL1206	Anatomy and Physiology II
BIOL2003	Cell Biology
BIOL3009	Microbiology
BIOL3256	Genetics
BIOL3332	Immunology
<i>Chemistry</i>	
CHEM1201	General Chemistry I
CHEM2221	Analytical Chemistry
CHEM3281	Biochemistry I
<i>Criminology</i>	
CMLGY1306	Introduction to Crime and Criminology
CMLGY2300	Wrongful Convictions
CMLGY2307	Deviance and Social Control

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CMLGY2333 Criminal Law  
CMLGY2360 Victimology  
CMLGY2701 Penology  
CMLGY3301 Women and Crime  
CMLGY3308 Law and Society  
CMLGY3309 Policy Analysis  
CMLGY3310 Juvenile Delinquency

*Philosophy*

PHIL1101 Introduction to Logic

*Psychology*

PSYC3005 Abnormal Psychology  
PSYC3032 Physiological Psychology  
PSYC3302 Human Development (Adolescent)

PSYC3310 Social Psychology  
PSYC3334 Psychopharmacology  
PSYC4291 History and Systems of Psychology

Note: Students who previously declared an 18-credit minor in this area must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 16-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 16-credit minor. *No course substitutions will be permitted.*

**Gender Studies Interdisciplinary Minor**

Gender studies is an interdisciplinary program that places gender at the center of its analysis, research and scholarship. Gender studies draws from a wide range of disciplines, including literature, government and law, anthropology, sociology, criminology and psychology, to investigate how gender operates at every level of society from the individual to the structural, from daily interactions to global processes. Although many aspects of gender studies have been inspired by feminism, a broad variety of theoretical approaches are used to study gender, including women's studies, men's studies and gay and lesbian studies. For information, contact the department of psychology and counseling, the department of social sciences and history or the department of communication studies.

The gender studies minor consists of 15 credits of gender studies-designated courses, such that at least three different disciplines are represented. At least nine credits in the minor must be at the 3000- or 4000-level.

The following is a sample of gender studies-designated courses:

ARTH3423 Women Artists  
BIOL1010 Human Sexuality

CMLGY3301 Women and Crime  
COMM2866 Women and Minorities in Media  
COMM3014 Family Communication  
COMM3051 Communication and Gender  
GOVT2070 Women and American Politics  
GOVT2071 Gender and Public Policy  
LITS3221 Medieval and Renaissance Women Writers  
SOCI3314 Sociology of Gender  
SPAN4005 Latin-American Women Writers

**Globalization and Society Interdisciplinary Minor**

The globalization and society minor provides students with an understanding of the complex phenomenon of globalization. By using the disciplinary perspectives of anthropology, communication, economics, literature and sociology, the minor provides students with two things. One, it expands their disciplinary and interdisciplinary knowledge. Second, it makes them better prepared for employment opportunities in an interconnected world. Offered jointly by the department of literature, language, writing and philosophy; the department of communication studies; and the department of social sciences and history, the minor requires 18 credits. Since most theorization of globalization is rooted within the sociological perspective, students are required to take SOCI2248 Globalization, Culture and Identity and five other courses from the following list, making selections from at least two different disciplines.

*Anthropology*

ANTH2335 African Peoples and Cultures  
ANTH2338 Israeli Society and Culture  
ANTH3102 Anthropology of Children and Childhood

*Communication*

COMM3019 Global Communication

*Economics*

ECON3310 Current Economic Problems

*History*

HIST1150 World History I  
HIST1151 World History II  
HIST3322 The Roman Empire  
HIST3347 History of Modern China

*Literature*

LITS3061 Contemporary World Literature

LITS3302 Myth and Sacred Texts  
LITS3303 World Folk Literature  
LITS3311 Children's Literature  
LITS3313 Nobel Literature  
LITS3351 Literary Perspectives on the Environment

*Philosophy*

PHIL2205 Social and Political Philosophy

**Government and Law Interdisciplinary Minor**

The 15-credit government and law interdisciplinary minor is for students not majoring in government and law. Students who want to earn a minor in government and law must take five courses in government and law (GOVT).

**Italian Studies Interdisciplinary Minor**

The Italian studies minor is designed to offer Becton College students who study for the fall/spring semester or summer session at Bergamo University in Italy the opportunity to earn a minor that recognizes Bergamo's unique Italian-centered curriculum. Students take select courses at Becton College and Bergamo in order to fulfill the required 15 credit hours for the minor.

Choose up to 15 credits, but it must include 9 credits in language and literature as well as 6 credits in history and social sciences.

Students must take Italian language through the intermediate level but may earn credit for advanced-language courses at Bergamo University or Becton College.

**Required Courses (3-6 credits)**

	Credits
ITAL1002 Beginning Italian II.....	3
ITAL2003 Italian Conversation I or	
ITAL2004 Italian Conversation II.....	3

**Language and Literature Electives (3-6 credits)**

ITAL2005 Italian Cinema.....	3
ITAL3390 Italian Mafia in Literature and Film.....	3
ITAL4800 Independent Study in Italian.....	1-6

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## History and Social Science Electives (6 credits)

	Credits
HIST2223	
Renaissance and Reformation.....	3
HIST3321	
The Roman Republic	
or	
HIST3322	
The Roman Empire.....	3

## Bergamo Courses

Students will receive credit for relevant courses approved by the department in Italian-centered curriculum.

## Japanese Studies Interdisciplinary Minor

Students must complete 15 credits combining language courses, up to the intermediate level, and courses related to the nation(s) where the language is spoken. Select courses may be taken at partner institutions to complete the minor. Please contact the department of literature, language, writing and philosophy for details and approval.

## Latin-American Studies Interdisciplinary Minor

The Latin-American studies minor is a 15-credit cultural studies program designed to offer Becton College students an interdisciplinary minor that incorporates Latin American-centered curriculum to include Spanish language as well as literature and history. Students can also earn credit through courses linked to short-term study abroad in Latin America regularly offered at Becton College, while they can also earn credit from a full-semester, study-abroad program in Latin America.

## Requirements

From the 15 credits available:

- Students need a minimum of 6 credits in language and literature and 6 credits in history.
- The students can take the remaining 3 credits in either language and literature or history

## Language and Literature Courses

### Required Language and Literature Courses

Pick 1 or 2 courses:

	Credits
SPAN1002	
Beginning Spanish II.....	3
SPAN2003	
Spanish Conversation I*.....	3
SPAN2004	
Spanish Conversation II*.....	3
SPAN2009	
Spanish for Professions.....	3
SPAN3411	
Latin-American Culture and Civilization (Spanish).....	3

### Elective Language and Literature Courses

Pick 0 to 2 courses:

SPAN2006	
Music in Spanish: Writing and Conversation.....	3
SPAN2007	
Hispanic Current Events: Writing and Conversation.....	3
SPAN2008	
Hispanic Film: Writing and Conversation.....	3
SPAN2507	
Latin-American Culture and Civilization (English).....	3
SPAN2530	
Latin-American Film.....	3
SPAN3310	
Latin-American Women Writers.....	3
SPAN3431	
Latin-American Short Stories.....	3
SPAN3441	
Latin-American Theater.....	3
SPAN3463	
The Hispanic Essay.....	3
SPAN4440	
The Hispanic Novel: From Cervantes to García Márquez.....	3
SPAN4477	
Honors Research and Thesis.....	3
SPAN4498	
Internship.....	3
SPAN4800	
Senior Independent Study – Spanish.....	3

## History Courses

### Available History Courses

Pick 2 or 3 courses:

HIST2501	
Colonial Latin America.....	3
HIST2502	
Modern Latin America.....	3

\*SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

Credits

HIST2503	
Indigenous Peoples of Latin America...	3
HIST2504	
Gender and Race in Latin America.....	3
HIST2506	
Pre-Columbian Americans.....	3
HIST3251	
Crime and Punishment in Latin America.....	3

## Or in Conjunction with

**Study Abroad** (Short term of 3–6 credits or full-semester study abroad of up to 15 credits is highly recommended. Students will receive credit for relevant courses approved by the department of social sciences and history for Latin-American and/or Spanish-centered curriculum.

## Prelaw Interdisciplinary Minor

The 15-credit prelaw minor provides students with the substantive background and specific skills for success in law school as well as basic exposure to legal systems and concepts. The prelaw minor targets these areas for development.

1. Clear, concise, organized writing;
2. Logic and reasoning skills;
3. Oral argument and advocacy;
4. Effective argument construction and assessment; and
5. Exposure to legal thinking and terminology.

## Required Course (3 credits)

GOVT1200	
Introduction to Law*	
or	
GOVT3240	
Law and Society.....	3

## Electives (12 credits)

Select from the following:

AFAM2100	
The New Jim Crow.....	3
ANTH2431	
Anthropology of Crime.....	3
ANTH3349	
War and Crime.....	3
CMLGY1306	
Introduction to Crime and Criminology.....	3
CMLGY2317	
Probation and Parole: Theory and Practice.....	3

\*This course should be taken before the other classes in the prelaw minor sequence.

# Teacher Certification

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	Credits
CMLGY2503	
Crime and Media.....	3
CMLGY2701	
Penology.....	3
GOVT1200	
Introduction to Law.....	3
GOVT2030	
The Supreme Court.....	3
GOVT2071	
Gender and Public Policy.....	3
GOVT2230	
Judicial Process.....	3
GOVT3210	
Civil Liberties and Civil Rights*.....	3
GOVT3220	
Criminal Law.....	3
GOVT3230	
International Criminal Law.....	3
GOVT3240	
Law and Society.....	3
GOVT4220	
Advanced Criminal Law.....	3
HIST3250	
Crime and Punishment in South Africa.....	3
HIST3251	
Crime and Punishment in Latin America.....	3
PHIL2432	
Philosophy of Law.....	3

## Screenwriting/Dramatic Writing Interdisciplinary Minor

The screenwriting/dramatic writing minor is designed for students interested in studying the art and craft of writing for the screen and/or stage. The rationale for the proposed required courses for this minor is that knowledge of all forms of creative and dramatic writing contribute to each other and is necessary for a student to become a well-rounded writer no matter what the format. The most talented, acclaimed and successful screenwriters and playwrights often cross genres. For information contact the School of the Arts.

<b>Required Courses (9 credits)</b>	Credits
CREW2255	
Playwriting and Dramatic Structure.....	3
FILM2250	
Screenwriting I.....	3
FILM2251	
Screenwriting II.....	3

\*This course will include a significant legal writing emphasis.

## Electives (6 credits)

Select two of the following courses:

	Credits
COMM2005	
Narrative Communication in Media and Everyday Life.....	3
CREW2002	
Creative Writing: Fiction.....	3
FILM3303	
Advanced Screenwriting I.....	3
FILM3304	
Advanced Screenwriting II.....	3
THEA3255	
Advanced Playwriting.....	3

## Personalized Minor

In consultation with a faculty mentor, a student may design a personalized minor to meet specific needs or interests. The student must then submit to the Becton College Dean's Office a written rationale for the minor, a title for the minor and a list of the needed courses, demonstrating that they will be offered in time for graduation. The minor is then subject to the approval of the faculty mentor and the associate dean of academic affairs. A Declaration of Minors form must then be completed with the signature of the mentor and a copy given to the Office of Enrollment Services. The faculty mentor must then oversee the minor. Upon graduation, enrollment services will contact the mentor to ensure that the minor will appear on a student's transcript. The minor should be declared no later than the first semester of the student's junior year; it must consist of a minimum of 18 credits and it must rely primarily on courses already offered in the College. A student may take up to one Independent Study in order to complete the minor.

## Teacher Certification Requirements

At times, the New Jersey State Department of Education regulations change. Students are advised to check the New Jersey State Department of Education website <<http://www.state.nj.us/education/>> for current requirements.

In New Jersey, the State Department of Education grants approval for teacher certification based upon the following:

- a bachelor's degree from an accredited institution which includes 60 credits in liberal arts and science courses for elementary education, including at least 3 credits in physiology, biology or health;

- for middle-school candidates, a course in adolescent development and 15 or more credits in the content area for their certification (e.g., mathematics, English, etc.);
- for secondary candidates, a major in the subject area to be taught or 30 credits of a coherent sequence of courses in the subject area (e.g., mathematics, biology, etc.) where half of the courses are at an upper level (3000 and above);
- completion of appropriate education courses, field experiences and student teaching;
- full matriculation into the QUEST program as described above;
- a minimum cumulative grade point ratio (CGPR) of 3.00; and
- a passing score on the state-required Praxis II Test appropriate for the area of certification.

*Students must major in liberal arts or a science. In New Jersey, a student cannot major in education.* Individuals preparing for subject-area certification to teach at the secondary level (e.g., science, foreign languages, etc.) must major in the field they are planning to teach. Students interested in early childhood or elementary education may major in select liberal arts/science fields of interest or major in the humanities with a prescribed concentration of courses in a specific content area. Professional or "technical" majors (e.g., marketing, journalism, accounting, etc.) do not satisfy the state requirement for a B.A. or B.S. in a liberal arts/science specialization. Those individuals must present a transcript including 60 credits in the liberal arts or pure sciences in order to qualify for elementary certification.

Students seeking certification must complete the required courses of their liberal arts/science major, courses in "general education" and specific courses in the behavioral sciences (sociology, anthropology or psychology) that are related to teaching and learning. Together these areas must total a minimum of 60 course credits. The total of 60 "general education" credits must be distributed among the following areas: mathematics, science, American and English literature, American history and American studies, non-Western studies, Western history, art history or music, philosophy, technology, foreign language and psychology.

Students majoring in psychology are required to take 15 or more credits in a content area (English, history, mathematics or science).

# Course Numbering System • Allied Health Sciences

Maxwell Becton College of Arts and Sciences  
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Those individuals desiring to teach on the middle-school level (5\*, 6\*, 7, 8) must qualify for elementary school certification with subject-matter specialization endorsement. In order to do so, the following requirements must be met, according to N.J.A.C. 6A:9–8.1:

1. Hold a Certificate of Eligibility (CE), Certificate of Eligibility with Advanced Standing (CEAS) or standard certificate;

2. Complete study in the characteristics of children and young adolescents (adolescent psychology or developmental psychology);

3. Pass the appropriate state test in content-area specialization for middle school;

4. Complete a prescribed coherent sequence of courses in, but not limited to, one of the following specializations: 15 credits in a single CCCS subject field (mathematics, English, history, etc.);

Prospective teachers in the QUEST (B.A. or B.S./M.A.T.) program follow the *traditional route* to teacher certification, which requires the candidate: to hold a bachelor's degree from an accredited college or university; to have completed at least 30 credit hours in courses appropriate to the instructional field of certification; and to pass the state-required Praxis II Test. In the traditional route, the professional development requirement is met by completing an approved teacher-education program (which includes course work in education and three levels of practical [field-based] experience — initial exposure in the classroom followed by a more intensive field experience and culminating with a supervised student teaching experience). All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school with at least 175 hours prior to the final, full-time semester of student teaching. If students have met all of the requirements *and* have completed an approved student-teaching experience, they may be recommended for a “Certificate of Eligibility with Advanced Standing,” which qualifies them to be hired as first-year teachers with a provisional certificate to satisfy the state’s

“Induction Year” requirement for standard certification. The hiring school district is required: 1) to provide the new teacher with a mentor and special on-the-job support and 2) to evaluate the new teacher’s performance and make a recommendation on the issuance (or nonissuance) of a standard certificate at the end of the year.

Regarding teacher certification in other states, New Jersey has “reciprocity” with a number of other states and the District of Columbia. Persons seeking employment in another state should write to that state’s office of teacher certification for information.

## Course Numbering System

0000 — Developmental Level: remedial or developmental courses intended to prepare students for entry into curriculum or to remove a deficiency, no degree credit.

1000 — Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula or intended for freshmen or lower-division students.

2000 — Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.

3000 — Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.

4000 — Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.

5000–9000 — Graduate Level: a graduate course.

## Allied Health Sciences Majors

### Department of Biological and Allied Health Sciences

Detailed information on specific majors is included in the alphabetical listing of majors.

#### Allied Health Technologies (B.S.A.H.T.)

See page 65.

*Concentration: radiologic technology*

#### Clinical Laboratory Sciences (B.S.C.L.S.)

See page 71.

*Concentration: medical laboratory science (medical technology)*

#### Medical Imaging Sciences (B.S.M.I.S.)

See page 95.

*Concentrations: diagnostic medical sonography, vascular technology*

## Allied Health Sciences Programs

The programs in the allied health sciences at the Florham Campus are designed to provide the broad, intensive, academic and clinical experiences that undergraduate students need to assume their chosen professions. The core curriculum is designed to meet the professional essentials for state licensing and/or National Registry Examination. The allied health programs may be subject to change to ensure that they are continuously in accordance with professional essentials. Information is available in the Allied Health Office about academic and clinical courses approved after publication of this bulletin.

The programs in allied health articulate with the B.S. degree in biology as well as many other disciplines, permitting flexibility in preparation for an advanced professional degree.

The curriculum provides a special environment in which students can integrate their academic and professional applied learning with the clinical practicum. It emphasizes the need for sound preparation in the natural and physical sciences, familiarity with the disciplines represented by courses in the liberal arts and use of the

\*This requirement does not apply to those who teach in a self-contained classroom.



latest technological innovations in patient care. The medical directors and clinical and academic faculties supervise this integration using excellent physical facilities and human resources of the primary teaching hospitals. Selected secondary teaching centers in health care hospitals and community services are utilized for required practicum experiential training and also are affiliated by contractual agreement.

All allied health majors must complete 96 credits at FDU in their concentration in addition to the clinical courses required by the affiliate institution.

Should a student desire to attend a clinical institution with which FDU does not have a current affiliation, the director of allied health will try to arrange for the student to attend that institution, provided that the institution is nationally accredited in the student's particular concentration. Reasonable time constraints must be considered to enable both schools to facilitate such an arrangement.

Students attending Rutgers School of Health Professions (Rutgers SHP) will be awarded a joint (FDU/Rutgers SHP) bachelor of science degree after successfully completing their concentration at that institution. Students attending other institutions will be awarded a bachelor of science degree from FDU in their appropriate concentration.

### **Undergraduate Admission**

Students considering a degree in allied health should have a strong interest and proficiency in science and mathematics. The selection of an allied health career requires a great deal of introspection on the part of the student. A strong sensitivity to patient care, willingness to work with the sick and injured, as well as academic ability are necessary. Candidates must be in good health.

### **Transfer Students**

Transfer students or students who are certified or registry approved may receive transfer credits toward their B.S. degrees. Transfer students must make up areas of deficiency. The admissions department will evaluate transcripts and determine which credits may be accepted toward the allied health program. Permission to enter the allied health program resides with the allied health adviser.

Students with earned associate degrees from accredited institutions may apply for programs leading to a baccalaureate degree in the sciences, humanities, education or business administration. The credits earned in the associate degree program will be evaluated according to University policy, as stated in an earlier section of this bulletin.

### **Faculty**

The academic and clinical faculties, together, have developed innovative and relevant courses critical to the basic principles in all the health fields. The courses are designed to introduce students to professional choices during the initial stages of their formal study. Programs are designed to meet national professional essentials. In order for the program to reflect the needs of consumer education and health care services, consultants in each professional field, together with consumer representatives, provide discussion and feedback on the philosophy and curriculum of the program.

### **Advising**

Allied health majors are assigned to the allied health adviser for advisement. In-depth academic and professional counseling is provided throughout the college experience.

### **Career Opportunities**

The health care delivery system needs humane, competent health professionals to provide primary and preventive health care, as well as to assume professional positions in industry and research.

Students interested in upward mobility must think in terms of a baccalaureate degree and/or a double major. The objectives to be considered are sufficient academic and clinical training that would permit students to sit for registry, licensure and/or certification examinations monitored by the national professional societies.

The health delivery system represented by hospitals, clinics, institutions, agencies and medical-group practices requires the services of health professionals for extended care. Advanced specialization, teaching credentials, positions in research, industrial sales or marketing provide opportunities for advancement and geographical mobility.

## **Allied Health Technologies Major (B.S.A.H.T.)**

### **Department of Biological and Allied Health Sciences**

Completion of this program will result in a Bachelor of Science in Allied Health Technologies with a concentration in radiologic technology awarded jointly by Fairleigh Dickinson University and the partner institution. Students will complete 96 credits during their first three years at FDU. They then must apply for acceptance to the professional component at the partner institution for their senior year. Professional courses are taken at the partner institution. A joint degree is awarded upon completion of the professional component.

Admission to the clinical courses at the partner institution requires a separate application, usually in the junior year. Consult the program adviser for application details and time lines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU.

For more information regarding these degrees, contact the allied health adviser, Florham Campus.

### **Radiologic Technology Concentration**

Radiologic technologists perform a variety of diagnostic and therapeutic services within the health care industry and may find employment in hospitals, clinics and imaging centers. The program prepares students to perform traditional X-rays, bone densitometry and inject contrast media. Additional training is required for more advanced imaging technologies such as magnetic resonance imaging (MRI) or computed tomography (CT) scans. Specific requirements of the radiologic technology concentration are listed as follows.

# Biochemistry

Maxwell Becton College of Arts and Sciences  
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## Requirements for the Bachelor of Science in Allied Health Technologies Degree

Credits

### Biology Requirements

BIOL1110	
Medical and Pathological Terminology.....	2
BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL1205, BIOL1207	
Anatomy and Physiology I (Lecture and Laboratory).....	4
BIOL1206, BIOL1208	
Anatomy and Physiology II (Lecture and Laboratory).....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory).....	4
Biology Elective (Lecture and Laboratory).....	4

### Chemistry Requirements

CHEM1201, CHEM1203	
General Chemistry I (Lecture and Laboratory).....	4
CHEM1202, CHEM1204	
General Chemistry II (Lecture and Laboratory).....	4

### Physics Requirements

PHYS1001, PHYS1011	
General Physics I (Lecture and Laboratory).....	4
PHYS1002, PHYS1012	
General Physics II (Lecture and Laboratory).....	4

### Other Requirement

PSYC1201	
General Psychology.....	3
After completion of three years of study (a minimum of 96 credits) at FDU, the program is completed in any JR-CERT Radiologic Technology training program (generally two years). With the successful completion of the clinical training program at the partner institution, the student will earn the Bachelor of Science in Allied Health Technologies.	

## Biochemistry Major (B.S.)

### Department of Chemistry and Biochemistry

The bachelor of science with a major in biochemistry program is designed for students focused on preprofessional study, preparing them for admission to a school of pharmacy, medicine, veterinary medicine or dentistry with a series of core courses in chemistry and biology. The curriculum offers lecture and laboratory course work in topics that will effectively prepare students for future plans in these areas and will also provide students with extensive preparation for graduate school in chemistry, biochemistry and molecular biology or career plans within the areas of chemistry, biochemistry or related areas of biotechnology. Note: The B.S. in biochemistry is American Chemical Society (ACS)-certified.

### Required Courses

Credits

BIOL1201	
Biological Diversity.....	4
BIOL1202	
Introduction to Molecules, Cells and Genes.....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory)....	4
CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
CHEM2211, CHEM2213	
Inorganic Chemistry (Lecture and Laboratory).....	4
CHEM2221, CHEM2223	
Analytical Chemistry (Lecture and Laboratory).....	4
CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2
CHEM3241	
Physical Chemistry I.....	3
CHEM3242	
Physical Chemistry II.....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3244	
Physical Chemistry Laboratory II.....	2
CHEM3281, CHEM3282	
Biochemistry I, II.....	6
CHEM3389	
Biochemistry Laboratory.....	1

Credits

CHEM4233	
Instrumental Analysis.....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4501	
Capstone Research Assessment.....	1
ENGW1001	
Composition I: Rhetoric and Inquiry.....	3
ENGW1002	
Composition II: Research and Argument.....	3
MATH1133	
Applied Statistics.....	3
MATH1203, MATH2202	
Calculus I, II.....	8
PHYS2003, PHYS2013	
PHYS2004, PHYS2014	
General Physics with Calculus I, II.....	8

### Electives (1–6 credits)

Students may select from the following list of courses.

BIOL3009, BIOL3019	
Microbiology (Lecture and Laboratory).....	4
BIOL3221, BIOL3231	
Microbiology — Medical Focus (Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4
BIOL3332, BIOL3333	
Immunology (Lecture and Laboratory).....	4
BIOL3360, BIOL3361	
Introduction to Molecular Biology (Lecture and Laboratory).....	4
BIOL3408, BIOL3409	
Forensic Science (Lecture and Laboratory).....	4
BIOL4444	
Selected Studies in Cell and Molecular Biology.....	4
BIOL4470, BIOL4471	
Introduction to Neuroscience (Lecture and Laboratory).....	4
CHEM4215	
Advanced Inorganic Chemistry.....	3
CHEM4263	
Introduction to Medicinal Chemistry.....	3
CHEM4351	
Chemical Kinetics.....	3
CHEM4373	
Polymer Chemistry.....	3
CHEM4430	
Selected Topics in Chemistry.....	1–3
CHEM4436, CHEM4437	
Sophomore Mentored Research in Chemistry.....	0–3

	Credits
CHEM4438, CHEM4439 Junior Mentored Research in Chemistry.....	0-3
CHEM4440, CHEM4441 Senior Mentored Research in Chemistry.....	0-3
Another course with approval from the department chair.	

## Prepharmacy Concentration

Fairleigh Dickinson University offers the prerequisite courses for admission to most pharmacy schools. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

In addition to other General Education requirements, students must complete 95 credits as follows:

BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL1205, BIOL1207 Anatomy and Physiology I (Lecture and Laboratory).....	4
BIOL1206, BIOL1208 Anatomy and Physiology II (Lecture and Laboratory).....	4
CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2
CHEM2211, CHEM2213 Inorganic Chemistry.....	4
CHEM2221, CHEM2223 Analytical Chemistry.....	4
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
CHEM3242, CHEM3244 Physical Chemistry II (Lecture and Laboratory).....	5
CHEM3281 Biochemistry I.....	3
CHEM3389 Biochemistry Laboratory.....	1
CHEM4233 Instrumental Analysis.....	3
CHEM4234 Instrumental Analysis Laboratory.....	2
CHEM4253 Pharmacokinetics.....	3

	Credits
CHEM4263 Introduction to Medicinal Chemistry.....	3
CHEM4285 Pharmacology.....	3
CHEM4401 Chemistry Seminar.....	1
COMM2099 Professional Communications.....	3
ECON2001 Introduction to Microeconomics.....	3
ENGW1001 Composition I: Rhetoric and Inquiry.....	3
ENGW1002 Composition II: Research and Argument.....	3
MATH1133 Applied Statistics.....	3
MATH1203, MATH2202 Calculus I, II.....	8
PHYS2003, PHYS2013 General Physics with Calculus I.....	4
PHYS2004, PHYS2014 General Physics with Calculus II.....	4

## Electives (3-4 credits)

Students may select from the following list of courses.

BIOL3009, BIOL3019 Microbiology (Lecture and Laboratory).....	4
BIOL3221, BIOL3231 Microbiology — Medical Focus (Lecture and Laboratory).....	4
BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).....	4
BIOL3332, BIOL3333 Immunology (Lecture and Laboratory).....	4
BIOL3360, BIOL3361 Introduction to Molecular Biology (Lecture and Laboratory).....	4
BIOL3408, BIOL3409 Forensic Science (Lecture and Laboratory).....	4
BIOL4444 Selected Studies in Cell and Molecular Biology.....	4
BIOL4470, BIOL4471 Introduction to Neuroscience (Lecture and Laboratory).....	4
CHEM3241, CHEM3245 Physical Chemistry I (Lecture and Recitation).....	3
CHEM3243 Physical Chemistry Laboratory I.....	2
CHEM3282 Biochemistry II.....	3

	Credits
CHEM4215 Advanced Inorganic Chemistry.....	3
CHEM4235 Pharmaceutical Analysis.....	3
CHEM4373 Polymer Chemistry.....	3
CHEM4430 Selected Topics in Chemistry.....	1-3

The curriculum outlined above satisfies most of the first two years' requirements for majors in chemistry and biology and also provides a convenient entry to other degree programs in the University. This means that prepharmacy students will have built-in lateral mobility if their interests change. It also provides premedical students with entry to an alternative health care profession.

## B.S. in Biochemistry/Pharm.D. Seven-year Program

Students admitted into this program will spend six semesters on undergraduate biochemistry requirements and eight semesters in the FDU School of Pharmacy and Health Sciences. High school applicants wishing to enter this program must have an SAT score of 1,150 or higher (on the 1,600 scale) and a 3.50 grade point average. To remain in the program, students must maintain a 3.30 grade point ratio in the first six semesters and must also have a grade of B- or better in all prerequisite college courses. See Combined Degree Program section of this publication, page 244.

# Biology

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Biology Major (B.S.)

### Department of Biological and Allied Health Sciences

This curriculum is designed for students who plan to attend graduate school and for preprofessional students who wish to prepare for admission to a school of chiropractic, dentistry, medicine, osteopathy, pharmacy, podiatry or veterinary medicine. Students should consult the catalog of the school they plan to attend in order to include in their undergraduate program any special prerequisites not included in the biology curriculum.

**Dental Schools:** Three or four years of college are required for admission to schools of dental medicine. The minimum preadmission requirements are set forth by the American Dental Association. These include completion of a minimum of two years of work in an accredited college of liberal arts and sciences. It should be noted, however, that the majority of the students accepted have completed four years of undergraduate work. The college study must include, as a minimum, at least two semesters' credit in each of the following: English, biology, physics, inorganic chemistry and organic chemistry. Lectures and laboratory work are required in the science courses. The remaining work may be in the liberal arts electives such as history, philosophy, psychology, economics, English, foreign languages, mathematics and sociology. For students entering the Rutgers School of Dental Medicine, a combined seven-year program leading to a Bachelor of Science degree and a Doctor of Dental Medicine (D.M.D.) is offered on the conditions described in this bulletin, see page 252. Students should check "Pre dental Degree Option" in the index.

The admission course requirements for typical dental schools are 6 credits of English and 8 credits including laboratory of each of the following: biology, inorganic chemistry, organic chemistry and physics. Applicants must take the Dental Admissions Test.

**Medical Schools:** Entrance credits vary, but most schools require three or four years of college to include a general course in biology, two semesters of general physics, inorganic and organic chemistry and two or four semesters of English. A few require a reading knowledge of a modern foreign language. Mathematics through

calculus is recommended. The Medical College Admission Test of American Medical Colleges is required. Students should check the admission requirements for the medical school they plan to attend.

### Requirements for the Bachelor of Science Degree

Prerequisites: elementary algebra, plane geometry, one year of science. Up to pre-calculus level of mathematics preferred as well as high school biology and chemistry.

Students should see College requirements on pages 54–55 for details of the college general education requirements.

A student concentrating in biology must, in addition, fulfill the following requirements:

<b>Biology Core</b>	Credits
BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory)*.....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory)*.....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory).....	4
BIOL2049, BIOL2050	
Ecology (Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4
BIOL4401	
Biology Seminar.....	2
One course must be selected from each of the three major area courses:	
Area I Ecology and Environmental Biology.....	4
Area II Cell and Molecular Biology.....	4
Area III Anatomy and Physiology.....	4

### Biology Electives (8 Credits)

Select two 4-credit laboratory courses from major course Areas I, II or III (see above). If two biology elective courses are selected from the same major area, a concentration in that area may be declared.

### Mathematics

MATH1107 Precalculus, MATH1133 Applied Statistics and MATH1203 Calculus I.

### Physics

PHYS1001, PHYS1011;  
PHYS1002, PHYS1012  
General Physics I, II —  
(Lecture and Laboratory)  
4 credits each semester.....8

\*Normally taken freshman year.

<b>Chemistry</b>	Credits
CHEM1201, CHEM1202	
General Chemistry I, II — 3 credits each semester.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2

### Anatomy and Physiology Concentration

An anatomy and physiology concentration is offered. Students take upper-level electives in areas such as BIOL3253, BIOL3254 Comparative Anatomy and BIOL3337, BIOL3327 General Physiology. For additional information contact the biological and allied health sciences department.

### Cell and Molecular Biology Concentration

A cell and molecular biology concentration is offered. Students take upper-level electives in areas such as BIOL3360, BIOL3361 Introduction to Molecular Biology, BIOL4500, BIOL4501 Cell Biology Cancer and BIOL6880 Neurobiology. For additional information contact the biological and allied health sciences department.

### Ecology and Environmental Biology Concentration

An ecology and environmental biology concentration is offered. Students take upper-level electives in areas such as BIOL4100, BIOL4110 Marine Ecology, BIOL4460, BIOL4461 Ecotoxicology and BIOL4480, BIOL4481 Insect-transmitted Diseases. For additional information contact the biological and allied health sciences department.

### Prepharmacy Concentration

Students in the prepharmacy concentration focus on course work that prepare them for admission to a pharmacy school focusing on prerequisites for pharmacy school such as anatomy, physiology and biochemistry. This particular concentration does not involve an affiliation with any pharmacy school.

## Biology Minor

The biology minor is for students *not* majoring in biology.

Students minoring in biology must take 20 credits distributed as follows:

### Required

	Credits
BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...	4

### And

#### Option 1

BIOL2049, BIOL2050 Ecology (Lecture and Laboratory).....	4
BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).....	4
or	

#### Option 2

BIOL1205, BIOL1206 BIOL1207, BIOL1208 Anatomy and Physiology I, II (Lecture and Laboratory).....	8
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## Accelerated Programs with Professional Schools

Maxwell Becton College of Arts and Sciences has combined degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less time than the two degrees normally would require separately. These programs include:

- B.S./D.M.D. (Doctor of Dental Medicine) with the Rutgers School of Dental Medicine, Newark.
- B.S./M.D. with Ross University School of Medicine, Portsmouth, Commonwealth of Dominica, West Indies.
- B.S./D.C. (Doctor of Chiropractic) with Life Chiropractic College West, San Lorenzo, Calif.
- B.S./D.C. with Logan University, Chesterfield, Mo.
- B.S./D.C. with Palmer College of Chiropractic, Davenport, Iowa.
- B.S./D.C. with University of Western States, Portland, Ore.
- B.S./D.O. (Doctor of Osteopathic Medicine) with Lake Erie College of Osteopathic Medicine, Erie, Pa.

- B.S./D.P.M. (Doctor of Podiatric Medicine) with New York College of Podiatric Medicine, New York.
- B.S./D.V.M. (Doctor of Veterinary Medicine) with Ross University School of Medicine, Basseterre, St. Kitts, West Indies.

Contact the health preprofessional adviser in the biological and allied health sciences department for more information about these programs.

## Chemistry Major (B.S.)

### Department of Chemistry and Biochemistry

### Requirements for the Bachelor of Science Degree

The Bachelor of Science with a major in chemistry program is designed for students who plan to enter graduate school or the chemical industry. The curriculum is particularly suited for graduate programs in chemical engineering, computational chemistry, nuclear science, environmental science and the pharmaceutical and energy industry. The curriculum is certified by the American Chemical Society.

The program is also well suited to pre-medical students. Entrance requirements for most medical schools require an undergraduate program to include a general course in biology, general physics, English composition, a modern language and some calculus, in addition to a strong chemistry background. Premedical students should add to the Bachelor of Science with a major in chemistry program two semesters of general biology (botany and zoology) and, perhaps, one advanced biology course as electives. Preprofessional counseling for science and health careers is available on campus. Note: The B.S. in chemistry is American Chemical Society (ACS)-certified.

### Required Courses

	Credits
CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2
CHEM2211, CHEM2213 Inorganic Chemistry.....	4
CHEM2221, CHEM2223 Analytical Chemistry.....	4
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
CHEM3241, CHEM3242 Physical Chemistry I, II.....	6
CHEM3243, CHEM3244 Physical Chemistry Laboratory I, II.....	4
CHEM3281 Biochemistry I.....	3
CHEM3389 Biochemistry Laboratory.....	1

# Chemistry

Maxwell Becton College of Arts and Sciences  
Florham Campus

	Credits
CHEM4215 Advanced Inorganic Chemistry.....	3
CHEM4233 Instrumental Analysis.....	3
CHEM4234 Instrumental Analysis Laboratory.....	2
CHEM4401 Chemistry Seminar.....	1
ENGW1001 Composition I: Rhetoric and Inquiry.....	3
ENGW1002 Composition II: Research and Argument.....	3
MATH1133 Applied Statistics.....	3
MATH1203, MATH2202 Calculus I, II.....	8
PHYS2003, PHYS2013; PHYS2004, PHYS2014 General Physics with Calculus I, II.....	8
Students continuing a language from high school are advised to satisfy the language requirement in their first year. In addition, MATH2203 Calculus III, MATH3318 Differential Equations, CSCI1205 Introduction to Computer Programming, CSCI2232 Data Structures and CSCI2255 Discrete Structures are recommended.	

## Electives (1–6 credits)

Students may select from the following list of courses:

CHEM3282 Biochemistry II.....	3
CHEM4215 Advanced Inorganic Chemistry.....	3
CHEM4263 Introduction to Medicinal Chemistry.....	3
CHEM4351 Chemical Kinetics.....	3
CHEM4373 Polymer Chemistry.....	3
CHEM4430 Selected Topics in Chemistry.....	3
CHEM4436, CHEM4437 Sophomore Mentored Research in Chemistry.....	0–3
CHEM4438, CHEM4439 Junior Mentored Research in Chemistry.....	0–3
CHEM4440, CHEM4441 Senior Mentored Research in Chemistry.....	0–3
Another course with approval from the department chairperson	

Students may take graduate courses as electives in the seventh and eighth semesters with the approval of the chairperson. See the *Graduate Studies Bulletin* for a list of courses and descriptions.

Students should see pages 54–55 for the College requirements for details of the college general education requirements.

Students planning to enter pharmacy or medical school should take BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; BIOL1205, BIOL1207 Anatomy and Physiology I; BIOL1206, BIOL1208 Anatomy and Physiology II; and additional advanced biology courses as advised. Students considering graduate work in biological chemistry should take as electives BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; BIOL2003, BIOL2004 Cell Biology; and BIOL3009, BIOL3019 Microbiology. They also might consider BIOL3337 General Physiology and/or courses from the graduate offerings: BIOL6703 Cell Physiology, BIOL6711 Virology and a course in molecular biology.

## Chemistry Minor

The chemistry minor is for students *not* majoring in chemistry.

The chemistry minor consists of 19–20 credits distributed as follows:

	Credits
CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
Plus one 2000- or 3000-level chemistry course.....	3–4

## Combined B.S./M.S. in Chemistry with a Concentration in Pharmaceutical Chemistry

A qualified chemistry major in the fifth semester, with departmental approval, may plan a program to complete the requirements for a Master of Science degree in one additional year beyond the program. See Combined Degree Program section of this publication, page 235.

## Combined B.S. in Chemistry/Pharm.D. Seven-year Program

Students admitted into this program will spend six semesters on undergraduate biochemistry or chemistry requirements and eight semesters in the FDU School of Pharmacy and Health Sciences. High school applicants wishing to enter this program must have an SAT score of 1,150 or higher (on the 1,600 scale) and a 3.50 grade point average. To remain in the program, students must maintain a 3.30 grade point ratio in the first six semesters and must also have a grade of B- or better in all prerequisite college courses. See Combined Degree Program section of this publication, page 266.

## Clinical Laboratory Sciences Major (B.S.C.L.S.)

### Department of Biological and Allied Health Sciences

Completion of this program will result in a B.S. in Clinical Laboratory Sciences with a concentration in medical laboratory science (medical technology) awarded jointly by Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 96 credits during their first three years at Fairleigh Dickinson University. They then must apply for acceptance to the professional component at Rutgers SHP.

Admission to the clinical courses at Rutgers SHP requires a separate application, usually in the junior year. Consult the allied health adviser for application details and time lines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU. Students admitted to the clinical program must maintain a minimum grade point ratio of 3.00 and a "C" or better in their prerequisite courses at FDU subsequent to admission.

Also see "Allied Health Sciences Majors," page 64.

### Requirements for the Bachelor of Science in Clinical Laboratory Sciences

#### Medical Laboratory Science (Medical Technology) Concentration

Medical laboratory scientists use sophisticated instruments and biochemical, microscopic, molecular and immunological techniques to analyze medical specimens. They provide essential information to physicians about the presence, extent or absence of disease, as well as the effectiveness of treatment. They also apply their biomedical expertise in many areas such as cancer research, stem cell and organ transplantation and infections and genetic-disease testing.

<i>Biology Requirements</i>	Credits
BIOL1110 Medical and Pathological Terminology.....	2
BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL1205, BIOL1207 Anatomy and Physiology I (Lecture and Laboratory).....	4
BIOL1206, BIOL1208 Anatomy and Physiology II (Lecture and Laboratory).....	4
BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory).....	4
BIOL3009, BIOL3019 Microbiology (Lecture and Laboratory).....	4
BIOL3332, BIOL3333 Immunology (Lecture and Laboratory).....	4

#### Chemistry Requirements

CHEM1201, CHEM1205 General Chemistry I (Lecture and Laboratory).....	4
CHEM1202, CHEM1204 General Chemistry II (Lecture and Laboratory).....	4
CHEM2261, CHEM2263 Organic Chemistry I (Lecture and Laboratory).....	4
CHEM2262, CHEM2264 Organic Chemistry II (Lecture and Laboratory).....	4
CHEM3281, CHEM3389 Biochemistry I (Lecture and Laboratory).....	4

## Communication Studies Major (B.A.)

### Department of Communication Studies

The B.A. in communication studies is a general liberal arts major providing undergraduate students with a grounding in theory and practice in communication in preparation for professional careers or further study. The major emphasizes connections between disciplines dealing with the role of communication in contemporary culture and lays the foundations for excellence in creative and critical thinking, interpersonal skills, writing and speaking.

### Requirements for the Bachelor of Arts Degree

Students majoring in communication studies must complete 18 credits of required courses and 27 credits of communication electives.

#### Required Courses (18 credits)

	Credits
COMM2001 Perspectives on Communication Studies.....	3
COMM3018 Mass Communication.....	3
COMM3019 Global Communication.....	3
COMM3022 Communication Research.....	3
COMM4001 Communication Internship I.....	3
COMM4005 Literary and Communication Theory.....	3

#### Communication Electives (27 credits)

Students select at least nine COMM-prefixed 3-credit courses.

or

Students have the option of choosing a concentration: human communication, multimedia journalism or public relations (see this page and next page).

#### Human Communication Concentration

This concentration is for students who wish to gain a thorough understanding of human communication and the theories

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that describe and explain it. It is recommended for students with an interest in all aspects of human interaction or for students considering an advanced course of study.

*Fundamentals (take both courses)*

- COMM2002 Small Group Communication
- COMM2003 Interpersonal Communication

*Principles (take two courses)*

- COMM2005 Narrative Communication in Media and Everyday Life
- COMM2006 Nonverbal Communication
- COMM3004 Organizational Communication
- COMM3014 Family Communication

*Exploration (take two courses)*

- COMM2210 Popular Culture and the Media
- COMM3005 Social Media, Communication and Community
- COMM3023 Film and Culture
- COMM3051 Communication and Gender
- COMM3437 Talk at Work

*Plus*  
3 COMM Electives

## Multimedia Journalism Concentration

This concentration is for students interested in pursuing a career in the ever-changing world of journalism. Although journalism still involves the basics of researching and gathering information, today's journalists have more tools at their disposal for delivering that information to the public: photography, blogs, podcasts, webcasts and more. Potential positions include reporter, editor, newscaster, photojournalist and more.

*Fundamentals (take both courses)*

- COMM2011 Introduction to Journalism
- COMM4444 Multimedia Journalism

*Principles (take two courses)*

- COMM2005 Narrative Communication in Media and Everyday Life

- COMM2214 Introduction to Broadcasting
  - COMM3012 Newswriting
  - COMM3016 News Editing
- Exploration (take two courses)*
- COMM2866 Women and Minorities in Media
  - COMM3013 Feature Writing
  - COMM3051 Communication and Gender
  - COMM3060 Television News
  - COMM3248 Writing for Broadcast and Podcast
  - COMM3341 Radio Management
  - COMM3349 Introduction to Television
  - COMM3432 Sports Journalism
  - COMM3838 Media Ethics

*Plus*  
3 COMM Electives

## Public Relations Concentration

This concentration is for students interested in pursuing a career in the public relations field. The field of public relations has continued to grow and change over the last 10 years and now, more than ever, students need to enhance their knowledge and be well versed in the role that issues of globalization, ethics and responsibility now play in the field. Potential positions include publicity manager, events planner, press agent, lobbyist, strategic communication manager and more.

*Fundamentals (take both courses)*

- COMM2004 Public Relations Principles
- COMM3035 Public Relations Writing

*Principles (take two courses)*

- COMM3004 Organizational Communication
- COMM3030 Events Planning
- COMM3244 Public Relations Campaigns
- COMM3248 Writing for Broadcast and Podcast

*Exploration (take two courses)*

- COMM2002 Small Group Communication
- COMM2003 Interpersonal Communication
- COMM2005 Narrative Communication in Media and Everyday Life

- COMM2006 Nonverbal Communication
- COMM2099 Professional Communications
- COMM3005 Social Media, Communication and Community
- COMM4480 Crisis Communication in a Public Relations Context

*Plus*  
3 COMM Electives

## Advertising Minor

The 15-credit advertising minor is designed for students interested in studying the theoretical, practical and creative elements that go into the creation of compelling and successful advertisements and advertising campaigns. The philosophy behind the minor builds on the recognition that the professional domain of advertising draws from many varied disciplines. First, students must develop a foundational understanding of the concepts and theories included in the areas of advertising and marketing. Then they must develop and polish their theoretical understanding and professional skills in the areas of computer graphics, desktop publishing and basic video making — they need to understand all of the theoretical and creative elements that go into the creation of both print ads and commercials. Finally, students should be given the opportunity to develop their skills with courses that will enhance their knowledge regarding account management, campaign planning, implementation and evaluation.

Note: In order to fulfill the advertising minor, students must select *no more than 9 credits* in their major discipline. This policy is meant to ensure that students are taking full advantage of the interdisciplinary nature of the minor.

## Required Courses (9 credits)

	Credits
CGD1313 Creative Imagery with Photoshop.....	3
CGD1314 Illustrator Graphics and Design.....	3
COMM2221 Advertising Principles.....	3



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## Elective Courses (6 credits)

	Credits
<i>Communication</i>	
COMM4001	
Communication Internship I*.....	3
<i>Computer Graphic Design</i>	
CGD2370	
Print Layout.....	3
CGD3363	
Interactive Publishing.....	3
<i>Film</i>	
FILM1005	
Filmmaking I: Basic Production.....	3
<i>Marketing</i>	
MKTG2120	
Principles of Marketing.....	3
MKTG4272	
Consumer Behavior.....	3
MKTG4365	
Marketing Communications.....	3

## Broadcasting Minor

The broadcasting minor is designed for students interested in studying the theoretical, practical and creative elements within the radio and television industries. The philosophy behind the minor builds on the recognition that the professional domain of broadcasting draws from many varied disciplines. First, students must develop a foundational understanding of the concepts and theories included in the areas of radio and television. Then students can choose to further develop their skills in one or more of the areas through their selection of elective courses. Students are encouraged to take at least one approved broadcasting internship in the field of their choice, as prospective employers look for practical field experience from students.

Note: In order to fulfill the broadcasting minor, students must select *no more than 9 credits* in their major discipline.

This policy is meant to ensure that students are taking full advantage of the interdisciplinary nature of the minor.

## Required Courses (9 credits)

COMM2214	
Introduction to Broadcasting.....	3
COMM3349	
Introduction to Television.....	3
FILM1005	
Filmmaking I: Basic Production.....	3

\*Internship must be in radio or television.

## Elective Courses (6 credits)

	Credits
<i>Cinema Studies</i>	
CINE1501	
Cinematic Storytelling.....	3
<i>Communication</i>	
COMM3060	
Television News.....	3
COMM3248	
Writing for Broadcast and Podcast.....	3
COMM3341	
Radio Management.....	3
COMM4001	
Communication Internship I*.....	3
COMM4002	
Communication Internship II*.....	3
<i>Film</i>	
FILM2208	
Filmmaking II: The Professional Crew...	3
FILM2210	
Postproduction I.....	3
FILM2255	
TV News and Magazine Production.....	3
FILM4461	
Documentary Filmmaking.....	3
<i>Theater</i>	
THEA2005	
Directing I.....	3
THEA2203	
TV Writing and Screenwriting I.....	3
THEA3336	
Acting for Film and Television.....	3
<i>Writing and Creative Writing</i>	
CREW1002	
Introduction to Fiction Writing.....	3
CREW2250	
Screenwriting I.....	3

## Communication Minor

The communication minor is for students interested in the communication discipline who are *not* majoring in communication studies.

## Required Courses (9 credits)

COMM2001	
Perspectives on Communication Studies.....	3
COMM3019	
Global Communication.....	3
COMM3050	
Communication Theory	
or	
COMM4005	
Literary and Communication Theory.....	3

\*Internship must be in radio or television.

## Elective Courses (6 credits)

	Credits
Choose <i>one</i> of the following:	
COMM2002	
Small Group Communication	
or	
COMM2003	
Interpersonal Communication	
or	
COMM3014	
Family Communication.....	3
Choose <i>one</i> of the following:	
COMM2005	
Narrative Communication in Media and Everyday Life	
or	
COMM2210	
Popular Culture and the Media	
or	
COMM2866	
Women and Minorities in Media	
or	
COMM3018	
Mass Communication.....	3

## Journalism Minor

The journalism minor is intended for students who seek to develop a richer understanding of print, online and broadcast media. The purpose of the minor in journalism is to offer students the opportunity to build a skill-set suitable for the professional field of news media. Students can choose from a variety of courses such as newswriting, news editing and article writing. They can also gain newsroom experience through general work with the school newspaper, *The Pillar*, or the completion of a *department-approved* internship.

## Required Courses (9 credits)

COMM2011	
Introduction to Journalism.....	3
COMM3012	
News Writing.....	3
COMM3016	
News Editing.....	3

## Elective Courses (6 credits)

COMM2851	
Visual Journalism.....	3
COMM3013	
Feature Writing.....	3
COMM3015	
Political Reporting: Journalism in an Election Year.....	3
COMM3018	
Mass Communication.....	3

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	Credits
COMM3223	
Mass Communication Law.....	3
COMM3248	
Writing for Broadcast and Podcast.....	3
COMM3432	
Sports Journalism.....	3
COMM3838	
Media Ethics.....	3
COMM4001	
Communication Internship I*.....	3
COMM4444	
Multimedia Journalism.....	3

## Political Communication Minor

The political communication minor exposes students to an array of academic skills, substantive knowledge and political experiences that will help them analyze, understand and deploy political discourse in a variety of forms including campaign materials, media coverage, rhetoric, advertisements, constituent communications, persuasive writing and more technical communication and correspondence. The minor addresses issues such as public-opinion formation, strategic communication, press-state relations, communication between publics, political participation and international relations.

### Required Courses (6 credits)

COMM2001	
Perspectives on Communication	
Studies.....	3
GOVT2045	
Public Opinion.....	3

### Elective Courses (9 credits)

Two courses each from communication studies and political science from the list below:

	Credits
COMM2011	
Introduction to Journalism.....	3
COMM2866	
Women and Minorities in Media.....	3
COMM3012	
Newswriting.....	3
COMM3018	
Mass Communication.....	3
GOVT1000	
American Government and Politics.....	3
GOVT2520	
Qualitative Research Methods.....	3
GOVT2526	
Polls and Surveys.....	3
GOVT4498	
Internship in Government and Law*.....	3

### Rotating Topical Courses

COMM3004	
Organizational Communication.....	3
COMM3015	
Political Reporting: Journalism in	
an Election Year.....	3
COMM3051	
Communication and Gender.....	3
GOVT2015	
Campaigns and Elections.....	3
GOVT2526	
Polls and Surveys.....	3
GOVT3040	
Politics and the Media.....	3
GOVT3060	
Political Behavior.....	3

### Public Relations Minor

The public relations minor is designed for students interested in studying the theoretical and practical elements associated with the ethical and responsible practice of public relations and corporate communications. The field of public relations has continued to grow and change over the last 10 years and now, more than ever, students need to enhance their knowledge and be well versed in the role that issues of globalization, ethics and responsibility now play in the field.

### Required Courses (6 credits)

	Credits
COMM2004	
Public Relations Principles.....	3
COMM3035	
Public Relations Writing.....	3

### Elective Courses (9 credits)

Three courses from the following:

COMM2099	
Professional Communications.....	3
COMM3004	
Organizational Communication.....	3
COMM3030	
Events Planning.....	3
COMM3244	
Public Relations Campaigns.....	3
COMM4001	
Communication Internship I*.....	3
PSYC1201	
General Psychology.....	3
PSYC3310	
Social Psychology.....	3
PSYC3318	
Psychology of Everyday	
Persuasion**.....	3

### Accelerated Combined Degree Program — B.A. in Communication Studies/ M.A. in Communication

The department also offers an accelerated B.A. in communication studies/M.A. in communication program. For more information, see page 214.

\*Internship must be at a newspaper.

\*Approval of instructor required.

\*Internship must be in the area of public relations.  
\*\*Offered at Wroxton College.

## Computer Science Major (B.S.)

Department of Mathematics, Computer Science and Physics

### Requirements for the Bachelor of Science Degree

The Bachelor of Science program is designed to give students broad knowledge in the theoretical as well as practical aspects of computer science.

Students must complete 30 credits of required course work in the area of computer science as well as 12 credits of elective course work. In addition, students will complete 14 credits in mathematics and 8 credits in physics to be distributed as follows:

#### Computer Science

##### Required Courses (30–31 credits)

	Credits
CSCI1205	
Introduction to Computer Programming.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2216	
Introduction to Computer Science II.....	3
CSCI2233	
Data Structures and Algorithms.....	3
CSCI2255	
Discrete Structures.....	3
CSCI3278	
Operating Systems.....	3
CSCI3304	
Computer Organization.....	3
CSCI3315	
Software Design.....	3
CSCI3371	
Modeling and Simulation	
or	
MATH3303	
Probability.....	3
CSCI14391	
Senior Project I.....	1
and	
CSCI14391	
Senior Project II.....	2
or	
CSCI4498	
Co-op in Computer Science.....	3

#### Electives (12–17 credits)

Four additional courses to be selected from the 3000- or higher-level offerings in computer science (CSCI designation).

#### Mathematics

##### Required Courses (11 credits)

	Credits
MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH3318	
Differential Equations	
or	
MATH3220	
Linear Algebra.....	3

#### Electives (3 credits)

One additional course to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures.

#### Physics

##### Required Courses (8 credits)

PHYS2003, PHYS2013, PHYS2023	
General Physics with Calculus I.....	4
PHYS2004, PHYS2014, PHYS2024	
General Physics with Calculus II.....	4

#### Cybersecurity Concentration

Students planning to major in computer science with a concentration in cybersecurity will take specialized courses in computer science and mathematics such as cryptography and network and data security. There is a provision for internships that will provide practical experience in the field. Courses in this concentration will cover a range of topics from an overview of computer security, foundations — access control matrix, policy — security policies, confidentiality policies, integrity policies and hybrid policies to implementation — information-hiding techniques — steganography, digital watermarking, cryptography, fingerprinting, key management, cipher techniques, authentication, access control mechanisms, confinement problem, user and system security, data security, copyright, digital certificates and digital rights management.

The National Security Agency (NSA) and the Department of Homeland Security (DHS) have designated Fairleigh Dickinson University as a National Center of

Academic Excellence in Information Assurance Education (CAE/IAE) for the academic years 2012 through 2015. It has been renewed for the period 2015 through 2020.

#### Required Courses (24 credits)

	Credits
CSCI1205	
Introduction to Computer Programming.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2216	
Introduction to Computer Science II.....	3
CSCI2233	
Data Structures and Algorithms.....	3
CSCI2255	
Discrete Structures.....	3
CSCI3278	
Operating Systems.....	3
CSCI3304	
Computer Organization.....	3
CSCI3315	
Software Design.....	3
CSCI3371	
Modeling and Simulation.....	3
CSCI4499	
Co-op Computer Science.....	3

#### Computer Science Electives (18 credits)

Students opting for the cybersecurity concentration will include the following in their choice of electives:

CSCI3157	
Cyber Security.....	3
CSCI3355	
Introduction to Cryptography.....	3
CSCI3666	
Data Communications and Computer Networks.....	3
CSCI3869	
Network Security.....	3

In addition to 6 credits of electives in computer science.

#### Recommended Electives

CSCI3268	
Database Systems.....	3
CSCI3333	
Computer Algorithms.....	3

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## Cognate Courses

	Credits
MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH3318	
Differential Equations	
or	
MATH3220	
Linear Algebra.....	3
PHYS2003, PHYS2013, PHYS2023	
General Physics with	
Calculus I.....	4
PHYS2004, PHYS2014, PHYS2024	
General Physics with	
Calculus II.....	4
As part of the humanities and social science requirements, students will opt to take PHIL1103 Ethics and SOCI2306 Crime and Criminology.	
<b>Data Mining Concentration</b>	
Students planning to major in computer science with a concentration in data mining will take courses in computer science and mathematics. The concentration was designed based on guidelines provided by the ACM SIGKDD (Association for Computing Machinery's Special Interest Group on Knowledge Discovery and Data Mining) Curriculum Committee.	
<b>Required Courses (31 credits)</b>	
CSCI1205	
Introduction to Computer Programming.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2216	
Introduction to Computer Science II.....	3
CSCI2233	
Data Structures and Algorithms.....	3
CSCI2255	
Discrete Structures.....	3
CSCI3278	
Operating Systems.....	3
CSCI3304	
Computer Organization.....	3
CSCI3315	
Software Design.....	3
CSCI4391	
Senior Project I.....	1
and	
CSCI4392	
Senior Project II.....	2
or	
CSCI4498	
Co-op in Computer Science.....	3

	Credits
MATH3303	
Probability.....	3

## Elective Courses (18 credits)

CSCI3268	
Database Systems.....	3
CSCI3269	
Introduction to Data Mining.....	3
CSCI3270	
Introduction to Machine Learning.....	3
CSCI3333	
Computer Algorithms.....	3
CSCI3998	
Artificial Intelligence.....	3
Any 3000- or 4000-level CSCI course.....	3

## Additional Cognate Requirements

MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	3
MATH3220	
Linear Algebra.....	3
PHYS2003, PHYS2013, PHYS2023	
General Physics with	
Calculus I.....	4
PHYS2004, PHYS2014, PHYS2024	
General Physics with	
Calculus II.....	4

## Game Development Concentration

Students planning to major in computer science with a concentration in game development will take courses in computer science, mathematics and animation. The concentration prepares students for a career in gaming as well as in computer science. Students will take special courses that have been designed for this concentration as well as courses in animation and game design.

## Required Courses (27 credits)

CSCI1205	
Introduction to Computer Programming.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2216	
Introduction to Computer Science II.....	3
CSCI2233	
Data Structures and Algorithms.....	3
CSCI2255	
Discrete Structures.....	3
CSCI3278	
Operating Systems.....	3

	Credits
CSCI3315	
Software Design.....	3
CSCI3371	
Modeling and Simulation.....	3
CSCI4391	
Senior Project I.....	1
CSCI4392	
Senior Project II.....	2

## Elective Courses (18 credits)

Additional courses to be selected from the 2000- or higher-level offerings in computer science (CSCI designation). Students opting for the game development concentration must include the following in their choice of electives.

CSCI3333	
Computer Algorithms.....	3
CSCI3388	
Introduction to Game Programming.....	3
CSCI3998	
Artificial Intelligence.....	3
CSCI4488	
Advanced Game Programming.....	3
CSCI electives from levels 3000 and 4000 (CSCI3268 Database Systems is recommended).....	6

## Additional Cognate Requirements

MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	3
MATH3220	
Linear Algebra.....	3
PHYS2003, PHYS2013, PHYS2023	
General Physics with	
Calculus I.....	4
PHYS2004, PHYS2014, PHYS2024	
General Physics with	
Calculus II.....	4
Students should also select three cognates from the following.	
ANIM2240	
Low Poly 3D Modeling.....	3
ANIM2500	
3D Computer Animation.....	3
ANIM3330	
3D Environment Modeling.....	3
ANIM3341	
Character Animation Using CAT.....	3

## Computer Science Minor

The computer science minor is for students *not* majoring in computer science. Students who wish to minor in computer science must take 15 credits in computer science, distributed as follows:

## Required Courses (12 credits)

CSCI1205	Introduction to Computer Programming
CSCI2215	Introduction to Computer Science
CSCI2216	Introduction to Computer Science II
CSCI2255	Discrete Structures

## Elective Courses (6 credits)

Six credits of additional course work in computer science to be selected from the 2000- or higher-level offerings in computer science (CSCI designation).

## Five-year Combined Degree Program — B.S./M.S. in Computer Science

The department also offers a five-year B.S./M.S. in computer science program. For more information see page 238.

# Creative Writing Major (B.A.)

## School of the Arts

The B.A. in creative writing offers wonderful opportunities for emerging writers as they prepare for careers in a variety of fields. Students have the chance to study with nationally celebrated professional authors and editors and to play a valued role in a vital community of writers and readers. The distribution of course requirements provides students with a solid background in literary studies, an introduction to creative writing in a number of genres, an advanced focus in a particular genre and an opportunity to choose from dozens of complementary minors to tailor the major to the student's particular interests and needs.

Students have the chance to work as interns at *The Literary Review*, one of the most prestigious literary magazines in the country heading into its 61st year of publishing important writers from around the world. FDU's online student magazine, *Sphere*, offers students the chance to work in all aspects of publishing as they collaborate to create the world's first international student literary journal while making friends and contacts here and around the world.

The program is devoted to providing students with the best possible foundation for careers both in and out of the creative writing field. The program's students are editors, lawyers, writers, teachers, professors and advertising and marketing executives — and many choose to go on to graduate school in creative writing or literature. Students will have many opportunities to volunteer in the community and discover just how much their particular talents are valued in the world while making a significant contribution to it.

## Requirements for the Bachelor of Arts Degree

Students majoring in creative writing must complete 30–36 credits of writing courses and 9 credits of literature courses. An internship in an appropriate setting can be used as a writing elective.

## Required Courses (24 credits)

	Credits
CREW1001	
Introduction to Creative Writing.....	3
CREW2002	
Creative Writing: Fiction.....	3
CREW2003	
Creative Writing: Poetry.....	3
CREW2255	
Playwriting and Dramatic Structure	
or	
CREW2250	
Screenwriting I.....	3
CREW3020	
Reading as Writers	
(by spring of junior year).....	3
CREW4001	
Senior Writing Project I	
(by fall of senior year).....	3
CREW4002	
Senior Writing Project II	
(by spring of senior year).....	3

## Required Electives (6–12 credits)

Students must take an advanced (3000-level) course in at least two of the four genres; students must have completed the 2000-level course before enrolling in the 3000-level course.

Students may elect other CREW 3000-level courses.

CREW2016	
CNF: What's Your Real Story.....	3
CREW3010	
Special Topics: Invented	
Worlds — Speculative and	
Fantastic Fiction.....	3
CREW3011	
Advanced Fiction Writing.....	3
CREW3012	
Advanced Poetry Writing.....	3
CREW3013	
Advanced Dramatic Writing.....	3
CREW3023	
Special Topics: Telling the Truth.....	3

## Additional Electives

CREW4498	
Internship (Creative Writing).....	3

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## Literature Electives (9 credits)

	Credits
LITS2001 Survey I: Ancient to Early Modern or	
LITS2002 World Literature II: 13th–18th Centuries or	
LITS2003 Survey III: Approaches to World Literature.....	3
and	
6 additional credits in LITS at the 2000–4000 level Wroxton ENGL courses may be applied to these electives.	

## Creative Writing Minor

For students *not* majoring in creative writing.

### Required Course (3 credits)

CREW1001 Introduction to Creative Writing.....	3
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### Electives (12 credits)

Select three of the following creative writing courses:

CREW2002 Creative Writing: Fiction.....	3
CREW2003 Creative Writing: Poetry.....	3
CREW2016 CNF: What's Your Real Story.....	3
CREW2255 Playwriting and Dramatic Structure.....	3

Select one of the following advanced writing courses after having completed the 2000-level course in the same genre or with the permission of the instructor:

LITS2001 Survey I: Ancient to Early Modern.....	3
LITS2002 World Literature II: 13th–18th Centuries.....	3
LITS2003 Survey III: Approaches to World Literature.....	3

## Accelerated Combined Degree Program — B.A. in Creative Writing/M.F.A. in Creative Writing Program

For the accelerated combined B.A. in creative writing/M.F.A. in creative writing degree program, see page 215.

# Criminology Major (B.A.)

## Department of Social Sciences and History

### Requirements for the Bachelor of Arts Degree

The criminology major focuses on the nature and causes of crime and on the operation of the criminal justice system both nationally and internationally. Courses focus on the biological, psychological and sociological factors that cause crime; the consequences of crime; the impact of crime on victims and offenders; and the various mechanisms of enforcement and control at the local, state, federal and international levels. Additional courses focus on the social, political and economic factors that underlie crime; theories of punishment; the administration of justice in the United States; and some of the major trends in the field during the last 35 years, which include an examination of mandatory drug laws, zero-tolerance policing and sex-offender legislation. Students majoring in criminology take a minimum of 36 credits. These include the required foundation courses (15 credits); four electives drawn from criminology and/or sociology (12 credits); two electives drawn from government and law, psychology, anthropology or history (6 credits); and a required criminology internship (3 credits).

### Major Requirements (36–45 credits)

#### Required Major Courses (18 credits)

	Credits
CMLGY1201 Introduction to Sociology.....	3
CMLGY1306 Introduction to Crime and Criminology.....	3
CMLGY2203 Research Methods in Criminology.....	3
CMLGY2307 Deviance and Social Control.....	3
CMLGY3309 Policy Analysis.....	3
CMLGY3997 Internship in Criminology.....	1–6

### Criminology Internship (3–6 credits)\*

Students must take at least one of the following:

	Credits
CMLGY3997 Internship in Criminology.....	1–6
CMLGY3998 Internship in Criminology.....	1–6

### Criminology Electives (18–27 credits)

Students must each take a minimum of 18 elective credits; 12 of these credits must be drawn from criminology/sociology courses, with at least 6 additional credits drawn from designated courses from at least two of the following fields: anthropology, history, government and law and psychology.

#### Anthropology

ANTH2430	Anthropology of Law
ANTH2441	Forensic Anthropology
ANTH3349	War and Crime

#### Criminology

CMLGY2300	Wrongful Convictions
CMLGY2431	Anthropology of Crime
CMLGY2701	Penology
CMLGY3301	Women and Crime
CMLGY3307	Civil Liberties and Civil Rights
CMLGY3310	Juvenile Delinquency
CMLGY3316	Global Terrorism

#### Government and Law

GOVT1200	Introduction to Law
GOVT2230	Judicial Process
GOVT3200	American Constitutional Law
GOVT3210	Civil Liberties and Civil Rights
GOVT3220	Criminal Law
GOVT3240	Law and Society

Additional relevant courses may be permitted through the substitution and waiver process.

#### History

HIST2349	Contemporary America: 1968–Present
HIST3250	Crime and Punishment in South Africa

#### Psychology

PSYC3005	Abnormal Psychology
PSYC3310	Social Psychology
PSYC3334	Psychopharmacology
PSYC3360	Forensic Psychology

\*Students may also satisfy the criminology internship requirement through approved participation in The Washington Center for Internships.

# English Language and Literature

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<i>Sociology</i>	
SOCI2248	Globalization, Culture and Identity
SOCI2307	Social Deviance
SOCI2308	Gender and Deviance
SOCI2310	Social Problems
SOCI2316	Sociology of the Family
SOCI2319	Nationalism and Ethnicity
SOCI3308	Drugs in American Society
SOCI3310	Juvenile Delinquency

## **Criminology Minor**

The minor in criminology enables students to examine the following as they relate to race, class, gender and sexuality:

- Nature and causes of crime,
- Deviant and criminal behavior and
- Aspects of the criminal justice system (e.g., police, courts, prison, etc.)

## **Required Course (3 credits)**

CMLGY1306	Introduction to Crime and Criminology
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## **Electives (12 credits)**

Students should select the remaining four courses from the following list:

CMLGY1201	Introduction to Sociology
CMLGY2203	Research Methods in Criminology
CMLGY2204	Qualitative Research Methods
CMLGY2300	Wrongful Convictions
CMLGY2307	Deviance and Social Control
CMLGY2317	Probation and Parole: Theory and Practice
CMLGY2333	Criminal Law
CMLGY2360	Victimology
CMLGY2431	Anthropology of Crime
CMLGY2701	Penology
CMLGY3005	Abnormal Psychology
CMLGY3012	Crisis Intervention
CMLGY3030	Surveillance and Security
CMLGY3040	Capture and Control
CMLGY3207	Offender Reentry and Reintegration
CMLGY3301	Women and Crime
CMLGY3307	Civil Liberties and Civil Rights
CMLGY3308	Law and Society
CMLGY3309	Policy Analysis
CMLGY3310	Juvenile Delinquency
CMLGY3316	Global Terrorism
CMLGY3349	War and Crime
CMLGY3360	Forensic Psychology

CMLGY3404	International Criminal Law
CMLGY3841	Torture
CMLGY3997	Internship in Criminology

Students must have approval from criminology program director to count courses not found on this list toward the criminology minor.

## **English Language and Literature Major (B.A.)**

### **Department of Literature, Language, Writing and Philosophy**

In the 21st century, literature is a global art that transcends borders, illuminating human concerns, beliefs and experiences. Through the study of a wide range of literary works from past and present and from throughout the world, English language and literature majors in the Maxwell Becton College of Arts and Sciences develop insights needed to understand the diverse aesthetic, cultural and historical bases of literature, and enhance their ability to read with critical understanding and write clearly and analytically.

The English language and literature major offers two options: a track in **English and American literature** and a track in **world literature**. In addition, there are options for students in the five-year QUEST program.

### **Requirements for the Bachelor of Arts Degree**

Students majoring in literature must complete 15 credits of required courses and 27 credits of literature electives.

### **English and American Literature Track**

#### **Required Courses (15 credits)**

	Credits
LITS2001	
Survey I: Ancient to Early Modern.....	3
LITS2002	
World Literature II: 13th–18th Centuries.....	3
LITS2003	
Survey III: Approaches to World Literature.....	3
LITS2004	
Introduction to Literary Criticism.....	3
LITS4001	
Senior Seminar: English and World Literatures.....	3

# English Language and Literature

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## Literature Electives (24 credits)

### National Traditions

Choose three courses (9 credits) from the following:

	Credits
LITS3011	
American Literature I.....	3
LITS3012	
American Literature II.....	3
LITS3013	
African-American Literature.....	3
LITS3020	
18th-century British Literature.....	3
LITS3021	
Victorian Age.....	3
LITS3051	
Medieval Literature.....	3
LITS3054	
Romanticism.....	3
LITS3201	
British Writers.....	3
LITS3202	
American Writers: Race in Black and White.....	3
LITS3212	
Chaucer.....	3
LITS3213	
Shakespeare I.....	3
LITS3221	
Medieval and Renaissance Women Writers.....	3
LITS3230	
Jane Austen: Fiction and Film.....	3

### Genres

Choose three courses (9 credits) from the following (only one course from LITS3151 Detective Fiction, LITS3152 Science Fiction and LITS3153 Comic Books and Graphic Novels):

LITS3101	
Greek and Roman Drama.....	3
LITS3102	
Studies in Drama.....	3
LITS3103	
Modern Drama: 1880–1930.....	3
LITS3104	
Contemporary American Drama.....	3
LITS3105	
Contemporary European Drama.....	3
LITS3106	
Contemporary World Drama.....	3
LITS3107	
Hispanic Drama.....	3
LITS3111	
Studies in Poetry.....	3

LITS3112	
20th-century Poetry.....	3
LITS3121	
Studies in the Novel.....	3
LITS3122	
20th-century Novel.....	3
LITS3123	
Contemporary Fiction.....	3
LITS3151	
Detective Fiction.....	3
LITS3152	
Science Fiction.....	3
LITS3153	
Comic Books and Graphic Novels.....	3
LITS3154	
Women's Autobiography.....	3

### Topics

Choose three courses (9 credits) from the following:

LITS2008	
Literary Perspectives on Global Cultures.....	3
LITS3014	
American Dreams, American Tragedies.....	3
LITS3072	
Latin-American Women Writers.....	3
LITS3301	
The English Language.....	3
LITS3302	
Myth and Sacred Texts.....	3
LITS3303	
World Folk Literature.....	3
LITS3311	
Children's Literature.....	3
LITS3312	
Young Adult Literature.....	3
LITS3321	
Post-modern Literature.....	3
LITS3322	
Post-colonial Studies.....	3
LITS3331	
Ethnic American Literature.....	3
LITS3341	
Queer Literature.....	3
LITS3351	
Literary Perspectives on the Environment.....	3

Credits

## World Literature Track

### Required Courses (15 credits)

	Credits
LITS2001	
Survey I: Ancient to Early Modern.....	3
LITS2002	
World Literature II: 13th–18th Centuries.....	3
LITS2003	
Survey III: Approaches to World Literature.....	3
LITS2004	
Introduction to Literary Criticism.....	3
LITS4001	
Senior Seminar: English and World Literatures.....	3

### Electives (24 credits)

Fifteen credits must emphasize non-Western literature. Courses emphasizing non-Western literature are designated with an asterisk.

### National Traditions

Choose three courses (9 credits) from the following:

LITS3050	
Classical Tradition.....	3
LITS3051	
Medieval Literature.....	3
LITS3052	
Renaissance World.....	3
LITS3053	
18th- and 19th-century European Fiction.....	3
LITS3054	
Romanticism.....	3
LITS3061	
Contemporary World Literature*.....	3
LITS3064	
Vietnam in Film and Literature.....	1
LITS3070	
Voices of Contemporary India*.....	3
LITS3071	
Contemporary African Literature and Culture*.....	3
LITS3081	
Hispanic Traditions*.....	3
LITS3082	
Francophone World*.....	3
LITS3211	
Dante.....	3
LITS3215	
Cervantes.....	3

\*Courses emphasizing non-Western literature.



	Credits
LITS3221	
Medieval and Renaissance Women Writers.....	3
LITS3230	
Jane Austen: Fiction and Film.....	3
<b>Genres</b>	
Choose three courses (9 credits) from the following (only one course from LITS3151 Detective Fiction, LITS3152 Science Fiction and LITS3153 Comic Books and Graphic Novels):	
LITS3101	
Greek and Roman Drama.....	3
LITS3102	
Studies in Drama.....	3
LITS3103	
Modern Drama: 1880–1930.....	3
LITS3104	
Contemporary American Drama.....	3
LITS3105	
Contemporary European Drama.....	3
LITS3106	
Contemporary World Drama.....	3
LITS3107	
Hispanic Drama*.....	3
LITS3111	
Studies in Poetry.....	3
LITS3112	
20th-century Poetry.....	3
LITS3121	
Studies in the Novel.....	3
LITS3122	
20th-century Novel.....	3
LITS3123	
Contemporary Fiction.....	3
LITS3151	
Detective Fiction.....	3
LITS3152	
Science Fiction.....	3
LITS3153	
Comic Books and Graphic Novels.....	3
LITS3154	
Women’s Autobiography.....	3
LITS3155	
The Gothic in Fiction and Film.....	3
LITS3156	
The Novel in Letters.....	3
<b>Topics</b>	
Choose three courses (9 credits) from the following:	
LITS2008	
Literary Perspectives on Global Cultures.....	3
LITS3014	
American Dreams, American Tragedies.....	3

\*Courses emphasizing non-Western literature.

	Credits
LITS3072	
Latin-American Women Writers*.....	3
LITS3301	
The English Language.....	3
LITS3302	
Myth and Sacred Texts*.....	3
LITS3303	
World Folk Literature*.....	3
LITS3311	
Children’s Literature.....	3
LITS3312	
Young Adult Literature.....	3
LITS3313	
Nobel Literature.....	3
LITS3321	
Post-modern Literature*.....	3
LITS3322	
Post-colonial Studies*.....	3
LITS3331	
Ethnic American Literature.....	3
LITS3341	
Queer Literature.....	3
LITS3351	
Literary Perspectives on the Environment*.....	3

## English Language and Literature Minor

The English language and literature minor is for students who are *not* majoring in English language and literature.

### Required Courses (6 credits)

Choose two of the following:

LITS2001	
Survey I: Ancient to Early Modern.....	3
LITS2002	
World Literature II: 13th–18th Centuries.....	3
LITS2003	
Survey III: Approaches to World Literature.....	3

### Electives (12 credits)

Any four LITS courses at the 2000-level or above or FREN, ITAL and SPAN 3000-level courses.

## Film and Animation Major (B.A.)

### School of the Arts

The B.A. in film and animation is the choice for students who want to produce, direct, animate, write and shoot their own creative projects, as well as work in the growing field of film, video and digital entertainment. Within the major are seven concentrations: **2D animation, 3D animation, cinematography, directing, editing, film and video game animation.**

### 2D, 3D Animation Concentrations

FDU’s undergraduate animation program offers three concentrations (3D animation, 2D animation and video game animation [see page 84 for video game animation]). Upon entry, animation majors select one of these concentrations to be their area of focus. As they work their way through the curriculum, students have the option to switch concentrations should they decide to do so. Anyone interested in doing double concentrations should meet with the program director on an individual basis to determine if that is possible.

2D animation exists in space that consists of height and width. The motion is comprised of one drawing followed by another in a slightly different pose, followed by another in a slightly different pose and so on. 2D computer software is used to execute the elements needed to produce today’s two-dimensional animations.

Animations created in 3D computer software packages exist in an X, Y and Z world. The elements created for these kinds of projects are treated almost as physical objects that can be lit to emulate real-world situations, textured realistically and cameras can be placed to view these environments from any angle.

In addition to the credits required for each concentration shown below, students must fulfill the college general education requirements (see pages 54–55).

\*Courses emphasizing non-Western literature.

# Film and Animation

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## 3D Animation Concentration Requirements

### Required Theory and Production (30 credits)

	Credits
ANIM1500	
Storyboarding.....	3
ANIM1750	
Motion Graphics with After Effects®.....	3
ANIM1850	
3D Computer Modeling.....	3
ANIM2270	
ZBrush Digital Sculpting Human Anatomy.....	3
ANIM2500	
3D Computer Animation.....	3
ANIM3350	
3D Environment Modeling.....	3
ANIM3331	
Logo and Product Animation.....	3
ANIM3541	
Character Animation Using CAT.....	3
ANIM4500	
Thesis I.....	3
ANIM4600	
Thesis II.....	3

### Major Electives (12–15 credits)

4–5 ANIM1000- to 4000-level courses

### Cognate Requirement (3 credits)

CGD1313	
Creative Imagery with Photoshop.....	3

## 2D Animation Concentration Requirements

### Required Theory and Production (27 credits)

ANIM1300	
Writing for Animation.....	3
ANIM1400	
Character Design.....	3
ANIM1500	
Storyboarding.....	3
ANIM1501	
Fundamentals of Animation Principles.....	3
ANIM1750	
Motion Graphics with After Effects®.....	3
ANIM1800	
Vector Animation Using Animate CC.....	3
ANIM2100	
Tradigital Animation.....	3
ANIM4500	
Thesis I.....	3
ANIM4600	
Thesis II.....	3

## Major Electives (15–18 credits)

5–6 ANIM1000- to 4000-level courses

### Cognate Requirements (12 credits)

	Credits
ART1201	
Drawing I.....	3
CGD1313	
Creative Imagery with Photoshop.....	3
CGD1314	
Illustrator Graphics and Design.....	3

Select one from the following:

ART1202	
Drawing II.....	3
ART1250	
Art of the Graphic Novel.....	3
ART3302	
Life Drawing.....	3

## Cinematography Concentration

Cinematography is an art form unique to motion pictures, and the director of photography contributes in areas as diverse as the look of the film, what lighting instruments to use, production design and camera movement. The cinematography concentration will train cinematographers in both the technical and aesthetic skills of the cinematographer. Students also complete courses in other skill areas, as required of a film and animation major.

### Core Major Requirements (27 credits)

CINE1350	
History of Film.....	3
CINE1501	
Cinematic Storytelling.....	3
FILM1005	
Filmmaking I: Basic Production.....	3
FILM2208	
Filmmaking II: The Professional Crew...3	
FILM2210	
Postproduction I.....	3
FILM2250	
Screenwriting I.....	3
FILM3209	
Filmmaking III: Mastering the Art and Craft of Film Production.....	3
FILM4311	
Producing and Directing the Thesis Film I.....	3
FILM4312	
Producing and Directing the Thesis Film II.....	3

## Concentration Requirements (9 credits)

Select three courses from the following:

	Credits
FILM3211	
Cinematography: Lighting.....	3
FILM3214	
Cinematography: Camerawork.....	3
FILM3401	
Advanced Cinematography.....	3
FILM3430	
Reality TV Production.....	3
FILM4465	
Client-driven Production I.....	3

## Major Electives (6–9 credits)

### Cognate Requirements (10–16 credits)

ART1191	
Photography I.....	3
CGD1313	
Creative Imagery with Photoshop.....	3
COMM3549	
Introduction to Television.....	3
THEA3112	
Lighting for the Stage.....	3
THEA3351	
Production and Crew I.....	1
Any survey or auteur course.....	3

## Directing Concentration

The directing concentration is an area that covers a wide array of skills. Directors for the film medium must be educated in both technical and aesthetic areas that encompass what goes on both behind and in front of the camera. Directors must work with other artists to make the film, all the while keeping in mind the experience of the audience. Story structure, performance, camera, editing, sound, set and production design — all come under the auspices of the film director. Students also complete courses in other skill areas, as required of a film and animation major.

### Core Major Requirements (27 credits)

CINE1501	
Cinematic Storytelling.....	3
CINE3350	
Twentieth-century Cinema.....	3
FILM1005	
Filmmaking I: Basic Production.....	3
FILM2208	
Filmmaking II: The Professional Crew...3	
FILM2210	
Postproduction I.....	3
FILM2250	
Screenwriting I.....	3

# Film and Animation

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	Credits
FILM3209	
Filmmaking III: Mastering the Art and Craft of Film Production.....	3
FILM4311	
Producing and Directing the Thesis Film I.....	3
FILM4312	
Producing and Directing the Thesis Film II.....	3
<b>Concentration Requirements (9 credits)</b>	
CINE2350	
The American Film Director.....	3
FILM3363	
Film Directing.....	3
FILM survey or auteur course (with department approval).....	3
<b>Major Electives (6–9 credits)</b>	
Note: Three credits in internship experience may be used to fulfill major elective require- ments.	
<b>Cognate Requirements (10–16 credits)</b>	
CGD1313	
Creative Imagery with Photoshop.....	3
COMM2210	
Popular Culture and the Media.....	3
MUSIH2205	
Music for the Movies.....	3
PHIL1106	
Ideas of Happiness.....	3
PHIL1107	
Dreams and the Imagination.....	3
PHIL1436	
Asian Philosophy.....	3
PHIL2102	
Space and Time.....	3
PSYC3015	
Theories of Personality.....	3
PSYC3331	
Theories of Learning.....	3
PSYC3333	
Sensation and Perception.....	3
PSYC4291	
History and Systems of Psychology.....	3
THEA1110	
Introduction to Acting.....	3
THEA2005	
Directing I.....	3
THEA3351	
Production and Crew I.....	1

## Editing Concentration

Editing concentration is where all the elements involved in making a film are put together. Orson Welles once said, “Editing isn’t just one part of filmmaking, it is film-

making.” The editing room is where a story can be put together and taken apart; it’s where music and sound can be placed to enhance a story. And managing all the elements of postproduction — from syncing sound to cutting picture, to sound mixing and finalizing special effects — are under the management of the editor and postproduction supervisor. Students also complete courses in other skill areas, as required of a film and animation major.

## Core Major Requirements (27 credits)

	Credits
CINE1501	
Cinematic Storytelling.....	3
CINE3350	
Twentieth-century Cinema.....	3
FILM1005	
Filmmaking I: Basic Production.....	3
FILM2208	
Filmmaking II: The Professional Crew...3	
FILM2210	
Postproduction I.....	3
FILM2250	
Screenwriting I.....	3
FILM3209	
Filmmaking III: Mastering the Art and Craft of Film Production.....	3
FILM4311	
Producing and Directing the Thesis Film I.....	3
FILM4312	
Producing and Directing the Thesis Film II.....	3

## Concentration Requirements (9 credits)

FILM2214	
Audio for Film and Video.....	3
FILM3212	
Postproduction II.....	3
FILM3430	
Reality TV Production	
FILM4461	
Documentary Filmmaking	
or	
FILM4465	
Client-drive Production I.....	3

## Major Electives (6–9 credits)

Note: Three credits in internship experience may be used to fulfill major elective requirements.

## Cognate Requirements (10–16 credits)

ANIM1750	
Motion Graphics with After Effects® ....	3
CGD1313	
Creative Imagery with Photoshop.....	3

COMM2210	
Popular Culture and the Media.....	3
MUSIH2205	
Music for the Movies.....	3
THEA3351	
Production and Crew I.....	1
FILM survey or auteur course (with department approval).....	3

## Film Production Concentration

In the film production concentration, students learn modern digital film production, which has begun to take over the independent film circuit by storm, as well as industry-standard video and film production, shooting projects with HD, (HL), 24p digital cameras, professional Betacam and Arriflex 16mm cameras. Students learn nonlinear postproduction in Becton College’s Final Cut and Avid Editing Rooms. Courses in screenwriting, directing, lighting and cinematography complement production and postproduction courses. The program culminates in senior thesis projects screened at a public movie theater.

## Required Theory and Production (27 credits)

CINE1501	
Cinematic Storytelling.....	3
CINE3350	
Twentieth-century Cinema.....	3
FILM1005	
Filmmaking I: Basic Production.....	3
FILM2208	
Filmmaking II: The Professional Crew...3	
FILM2210	
Postproduction I.....	3
FILM2250	
Screenwriting I.....	3
FILM3209	
Filmmaking III: Mastering the Art and Craft of Film Production.....	3
FILM4311, FILM4312	
Producing and Directing the Thesis Film I, II.....	6

## Major Elective Courses (Film Production) (15–25 credits)

## Cognate Requirements (15–16 credits)

CGD1313	
Creative Imagery with Photoshop.....	3
THEA3351	
Production and Crew I.....	1

# Film and Animation

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	Credits
Any survey or auteur course.....	3
Art course.....	3
Communications course.....	3
Theater course.....	3

## Video Game Animation Concentration

The video game animation program focuses on the artistic side of video-game production. Students study the formulation of the visual and interactive content, goals and gameplay of video games. The course work for this concentration emphasizes the visual and design components while learning the software necessary to produce animation for video games by constructing practical projects which are commonly produced in professional gaming companies. The faculty are working professionals who bring wealth of real-world experience and knowledge to share with students.

### Required Theory and Production (30 credits)

ANIM1650	Game Design.....	3
ANIM2240	Low Poly 3D Modeling.....	3
ANIM2270	ZBrush Digital Sculpting Human Anatomy.....	3
ANIM2500	3D Computer Animation.....	3
ANIM3330	3D Environment Modeling.....	3
ANIM3341	Character Animation Using CAT.....	3
ANIM3350	3D Game Creation Using Unreal.....	3
ANIM3450	3D Game Creation Using Unity.....	3
ANIM4500	Thesis I.....	3
ANIM4600	Thesis II.....	3

### Major Electives (12–15 credits)

4–5 ANIM1000- to 4000-level courses

### Cognate Requirements (6 credits)

ART1201	Drawing I.....	3
CGD1313	Creative Imagery with Photoshop.....	3

## All Concentrations

### Concentration Electives (14–16 credits)

Electives may be selected from a variety of courses in concentration and cognate disciplines. It is recommended that each student select courses from the elective category that fit into the following tracks:

### Cinematography, Film, Directing and Editing Concentrations

ANIM1750	Motion Graphics with After Effects®
ANIM1850	3D Computer Modeling
ANIM2500	3D Computer Animation
ANIM3330	3D Environment Modeling
ANIM3341	Character Animation Using CAT
CGD2213	2D Design with the Computer
CGD3303	Web Design
CINE1350	History of Film
CINE2404	Films of Alfred Hitchcock
CINE2405	American Film Comedy
CINE3011	Film Noir: Mystery Films 1940s–50s
CINE3215	Introduction to World Cinema
CINE4801	Horror and Science Fiction Movies
COMM3012	Newswriting
COMM3020	Art and Theory of Film
COMM3349	Introduction to Television
FILM3211	Cinematography: Lighting
FILM3212	Postproduction II
FILM3214	Cinematography: Camerawork
FILM3363	Film Directing
FILM3401	Advanced Cinematography
FILM3425	16mm Motion Picture Photography
FILM3426	Producing Movies
FILM3427	Distributing Movies and Media
FILM3430	Reality TV Production
FILM3462	Advanced Production
FILM4409	Music Scoring for Film-Video
FILM4422	Internship in Film I
FILM4423	Internship in Film II
FILM4461	Documentary Filmmaking
FILM4463	Sports Video Production
FILM4465	Client-driven Production I
FILM4466	Producing the Digital Film I
FILM4467	Producing the Digital Film II
FILM4470	Client-driven Production II

FILM4800	Independent Study
Any survey or auteur course	

### Animation Concentration

ANIM2243	Advanced After Effects®
ANIM2245	3D Character Modeling
ANIM2285	3D Asset Creation for Video Games
ANIM2300	Texturing for 3D Production
ANIM3225	Vector Animation II
ANIM3250	3D Particle Animation and Effects
ANIM3343	Advanced Character Animation
ANIM3345	Custom 3D Character Rigging and Animation
ANIM4100	Design and Development of Video Games
ANIM4422	Internship in Animation I
ANIM4423	Internship in Animation II
ANIM4800	Independent Study in Animation
ANIM4900	Faculty/Student Research
ANIM4901	Faculty/Student Research
ANIMH1202	History of Special Effects and Animation

### Video Game Animation Concentration

ANIM1500	Storyboarding
ANIM1750	Motion Graphics with After Effects®
ANIM1850	3D Computer Modeling
ANIM2243	Advanced After Effects®
ANIM2245	3D Character Modeling
ANIM2285	3D Asset Creation for Video Games
ANIM2300	Texturing for 3D Production
ANIM3250	3D Particle Animation and Effects
ANIM3331	Logo and Product Animation
ANIM3343	Advanced Character Animation
ANIM3345	Custom 3D Character Rigging and Animation
ANIM4422	Internship in Animation I
ANIM4423	Internship in Animation II
ANIMH1202	History of Special Effects and Animation

### Animation Minor

Animation is the process of creating the illusion of motion through a variety of techniques. The 15-credit minor in animation prepares students to understand the various types of digital 2D motion graphics (which focus on image manipulation) and 3D computer animation (which takes

# Film and Animation

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place in virtual worlds) and their uses. The flexibility of this minor allows students to target their area of interest whether it is commercial-style motion graphics, special effects or 3D character animation.

## Required Courses (9 credits)

	Credits
ANIM1850 3D Computer Modeling.....	3
ANIM2500 3D Computer Animation.....	3
CGD1313 Creative Imagery with Photoshop.....	3

## Elective Courses (6 credits)

Select two of the following courses:

ANIM1750 Motion Graphics with After Effects®....	3
ANIM2243 Advanced After Effects®.....	3
ANIM3250 3D Particle Animation and Effects.....	3
ANIM3331 Logo and Product Animation.....	3
ANIM3341 Character Animation Using CAT.....	3

## Cinema Studies Minor

The 15-credit cinema studies minor (previously called the film studies minor) is designed for students interested in studying movies as texts and as popular culture. Traditionally, students of this discipline study the history, production processes and the aesthetics of film as well as the theories that analyze the ways in which film, culture and audience interact to negotiate and construct meaning. The two required courses provide the foundations for these four areas of investigation (history, production, aesthetics, theory). The electives offer an opportunity for a wider breadth of experience or a more tightly focused study.

## Required Foundation Courses (6 credits)

CINE1501 Cinematic Storytelling.....	3
CINE3350 Twentieth-century Cinema.....	3

## Non-American Film Course (3 credits)

Select from the following:

CINE2005 French Cinema	or
FREN2005 French Film.....	

Credits

CINE2015 Italian Cinema.....	3
CINE2207 East Asian Cinema.....	3
CINE2515 Spanish Film.....	3
CINE3015 Japanese Culture Through Film.....	3
CINE3215 Introduction to World Cinema.....	3

## Auteur Course (3 credits)

Three credits on a director, such as:

CINE2010 Films of Spike Lee.....	3
CINE2350 The American Film Director.....	3
CINE2404 Films of Alfred Hitchcock.....	3
CINE2406 Clint Eastwood — The Total Artist.....	3
CINE2408 The Films of Woody Allen.....	3
CINE3345 Films of Steven Spielberg.....	3

## Cinema Studies Course (3 credits)

Three credits of cinema survey such as:

CINE2205 Blondes and Bombshells.....	3
CINE2405 American Film Comedy.....	3
CINE3335 The American Film.....	3
CINE3010 Film Noir: The Dark Side of Cinema.....	3
CINE3011 Film Noir: Mystery Films 1940s–50s.....	3
HIST2100 Medieval History in Film.....	3

## Film Production Minor

The film production minor is for students *not* majoring in film and animation. The minor in film consists of six courses that will prepare students to understand the filmmaking process, analyze the strengths of different genres in the medium and create short films in a digital medium in one of the genres that they have studied.

The courses in this minor will cover the foundations of the three stages of production, 1) conception and development of an idea, 2) preproduction and production and 3) postproduction. Students will choose to emphasize either their writing or production skills.

Credits

CINE1501 Cinematic Storytelling.....	3
FILM1005 Filmmaking I: Basic Production.....	3
FILM2208 Filmmaking II: The Professional Crew...3	
FILM2210 Postproduction I.....	3
FILM2250 Screenwriting I	or
FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production.....	
Any survey or auteur course.....	3

## Screenwriting/Dramatic Writing Minor

The screenwriting/dramatic writing minor is designed for students interested in studying the art and craft of writing for the screen and/or stage. The rationale for the proposed required courses for this minor is that knowledge of all forms of creative and dramatic writing contribute to each other and is necessary for a student to become a well-rounded writer no matter what the format. The most talented, acclaimed and successful screenwriters and playwrights often cross genres. For information contact School of the Arts.

## Required Courses (9 credits)

CREW2255 Playwriting and Dramatic Structure.....	3
FILM2250 Screenwriting I.....	3
FILM2251 Screenwriting II.....	3

## Electives (6 credits)

Select two of the following courses:

COMM2005 Narrative Communication in Media and Everyday Life.....	3
CREW2002 Creative Writing: Fiction.....	3
FILM3303 Advanced Screenwriting I.....	3
FILM3304 Advanced Screenwriting II.....	3
THEA3255 Advanced Playwriting.....	3

# Fine Arts

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## 3D Video Game Animation Minor

With the advancement of 3D-accelerated graphics, video games now go far beyond the sprite-based 2D graphics to display visuals that are more realistic and lifelike. In the 15-credit video game animation minor, students learn how to create optimized 3D graphics and animations that will respond well for the player, and then apply interactivity to those pieces using industry-standard game-creation platforms. Both first-person (rendered from the perspective of the player's character) and third-person (shown from a distance away from the player's character) games are explored.

### Required Courses (9 credits)

	Credits
ANIM2240	
Low Poly 3D Modeling.....	3
ANIM2500	
3D Computer Animation.....	3
CGD1313	
Creative Imagery with Photoshop.....	3

### Elective Courses (6 credits)

Select two of the following courses:

ANIM1650	
Game Design.....	3
ANIM3350	
3D Game Creation Using Unreal.....	3
ANIM3450	
3D Game Creation Using Unity.....	3

## Accelerated Combined Degree Program — B.A. in Film and Animation/M.A. in Animation Program

For the accelerated combined B.A. in film and animation/M.A. in animation degree program, see page 216.

## Accelerated Combined Degree Program — B.A. in Film and Animation/M.F.A. in Animation Program

For the accelerated combined B.A. in film and animation/M.F.A. in animation degree program, see page 217.

# Fine Arts Major (B.A.)

## School of the Arts

### Requirements for the Bachelor of Arts Degree

The School of the Arts offers a concentration in studio arts.

Students should see College requirements on pages 54–55 for details of the general education requirements.

### Studio Arts Concentration (42–45 credits plus 6 cognate credits)

The studio arts concentration offers a program of study for students interested in careers in the fine arts and related fields, such as art education, art therapy and museum studies. This innovative approach to the studio arts matches courses across disciplines from the unique ART1250 Art of the Graphic Novel and ART1260 Ceramic Character Sculpture to the traditional ART3302 Life Drawing and ART3337 Life Sculpture. Students gain a strong foundation as they are individually encouraged to develop their own artistic voice in an interdisciplinary approach. Knowledge of traditional skills is emphasized along with contemporary art and ideas. Offerings include a wide range of classes at multiple levels in drawing, painting, ceramics, sculpture, photography, two- and three-dimensional design, color theory, printmaking, computer graphics and art history. Students are exposed to a range of professional practices which prepare them for diverse careers in the arts.

### Major Requirements (42–45 credits plus 6 cognate credits)

#### Required Courses (33 credits/ 27 Studio Arts plus 6 cognate credits)

	Credits
ART1201	
Drawing I.....	3
ART1202	
Drawing II.....	3
ART1225	
Painting I.....	3
ART1231	
2-Dimensional Design I.....	3
ART1235	
Sculpture I.....	3

	Credits
ART1315	
Ceramics I.....	3
ART2233	
3-Dimensional Design.....	3
ART2236	
Introduction to Color.....	3
ART2316	
Ceramics II	
	or
ART2336	
Sculpture II.....	3
ART3237	
Junior Portfolio Preparation I.....	0
ART4371	
Senior Portfolio Preparation.....	0

### Cognate Requirements — Art History (6 credits)

ARTH1205	
Art History: Prehistoric Through Medieval.....	3
ARTH1206	
Art History: Renaissance Through Today.....	3

### Major Electives (15–18 credits)

It is suggested that electives be taken in studio arts and/or art history. See adviser for updated elective list.

ART1157	
Printmaking I.....	3
ART1169	
Watercolor Painting I.....	3
ART1191	
Photography I.....	3
ART1250	
Art of the Graphic Novel.....	3
ART1260	
Ceramic Character Sculpture.....	3
ART2060	
Advanced Character Sculpture.....	3
ART2061	
Animal Sculpture.....	3
ART2062	
Advanced Animal Sculpture.....	3
ART2269	
Watercolor Painting II.....	3
ART2316	
Ceramics II.....	3
ART2319	
Drawing III.....	3
ART2320	
Drawing IV.....	3
ART2326	
Painting II.....	3
ART2336	
Sculpture II.....	3
ART3302	
Life Drawing.....	3

	Credits
ART3307	
Ceramics III.....	3
ART3308	
Ceramics IV.....	3
ART3313	
Ceramics V.....	3
ART3314	
Ceramics VI.....	3
ART3327	
Painting III.....	3
ART3328	
Painting IV.....	3
ART3337	
Life Sculpture.....	3
ART4422	
Internship in Art I.....	3
ART4423	
Internship in Art II.....	3
ARTH1402	
Museums of New York.....	3
ARTH2218	
20th-century Art.....	3
ARTH3217	
Late 19th-century Art.....	3
ARTH3219	
Art in America.....	3
ARTH3423	
Women Artists.....	3
ARTH3803	
Modern Art in the New York Museum.....	3

## Art History Minor

The minor in art history is designed for students interested in studying the history of visual art as an academic discipline. The required six courses have been selected to prepare students in the fundamentals of this discipline and to cover a range of historical periods — spanning prehistoric to contemporary — as well as a variety of media. One studio art class is included to enhance the students' appreciation of the creative process and to strengthen their ability to write accurately about art.

### Required Courses (9 credits)

ARTH1205	
Art History: Prehistoric Through Medieval.....	3
ARTH1206	
Art History: Renaissance Through Today.....	3
ARTH2218	
20th-century Art.....	3

### Art History Elective (3 credits)

	Credits
ARTH1402	
Museums of New York or	
ARTH2265	
History of Photography or	
ARTH3423	
Women Artists or	
ARTH3803	
Modern Art in the New York Museum.....	3

### Studio Arts Elective (3 credits)

ART1201	
Drawing I or	
ART1225	
Painting I or	
ART1231	
2-Dimensional Design I or	
ART1235	
Sculpture I or	
ART1315	
Ceramics I or	
ART2233	
3-Dimensional Design.....	3

## Studio Arts Minor

The minor in studio arts consists of five courses (15 credits) that will prepare students in the fundamentals of two-dimensional and three-dimensional visual language, allowing them to express themselves in a range of methods and materials.

These courses instill in students the conceptual foundations for understanding the creative process as well as the technical skills to implement their ideas. Student art exhibitions and faculty-led trips to museums and galleries enrich the learning experience.

### Required Courses (12 credits)

	Credits
ART1201	
Drawing I.....	3
ART1225	
Painting I.....	3
ART1235	
Sculpture I and	
ART1231	
2-Dimensional Design I or	
ART2233	
3-Dimensional Design.....	3
ART1315	
Ceramics I.....	3

### Elective (3 credits)

Select any one of the following:

ART1250	
Art of the Graphic Novel.....	3
ART1260	
Ceramic Character Sculpture.....	3
ART2316	
Ceramics II.....	3
ART2326	
Painting II.....	3
ART3302	
Life Drawing.....	3
ART3337	
Life Sculpture.....	3

# Government and Law • Graphic Design

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## Government and Law Major (B.A.)

*Department of Social Sciences and History*

### Requirements for the Bachelor of Arts Degree

Students majoring in government and law must complete 30–45 credits of course work in GOVT courses or approved substitutions. The following courses are required.

	Credits
GOVT1000	
American Government and Politics.....	3
GOVT1100	
Global Politics.....	3
GOVT2400	
Political Ethics.....	3
GOVT2500	
Social Analysis.....	3
GOVT3801	
Current Events Seminar.....	3
GOVT4498	
Internship in Government and Law.....	3

Students may also take specially designed tracks in **global politics** and **legal studies**. Students shall select the remaining credits of course work from the 2000-, 3000- and 4000-level courses in government and law with the guidance of their faculty adviser.

Government and law is favored by students preparing for law school. It is not required but students interested in law may wish to major with the legal studies concentration and/or double major with criminology (pages 78–79) or pursue a criminology minor (page 79).

Government and law majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

Students should see College requirements on pages 54–55 for details of the general education requirements.

### Global Politics Concentration

Students majoring in government and law with a concentration in global politics must complete 33–42 credits of course work in the area of government and law.

The goal of the global politics concentration track is to prepare students for careers in international corporations, non-governmental organizations (NGOs) and

departments and agencies of the federal government which manage foreign affairs.

In addition to the courses required of all government and law majors, students in this track must take a minimum of 12 GOVT credits with a global politics emphasis at a 2000 or higher level. These courses will be designated GOVT2100–2199, GOVT3100–3199 and GOVT4100–4199.

### Legal Studies Concentration

Students majoring in government and law with a concentration in legal studies must complete 33–42 credits of course work in the area of government and law.

The goal of the legal studies concentration is to prepare students for law school or to provide students with a basic overview of law and legal institutions to help them in a variety of careers in government service, public policy or the private sector.

In addition to the courses required of all government and law majors, students in this concentration shall take the following courses:

	Credits
GOVT1200	
Introduction to Law	
or	
GOVT3240	
Law and Society.....	3
GOVT2230	
Judicial Process	
or	
GOVT2030	
The Supreme Court.....	3
GOVT3210	
Civil Liberties and Civil Rights	
or	
GOVT3220	
Criminal Law.....	3
An additional government and law course cross-listed in another field (such as anthropology, criminology, sociology or literature). These courses will be designated GOVT2380–2399, GOVT3380–3399 and GOVT4380–4399.	

### Government and Law Minor

The government and law minor is for students *not* majoring in government and law. Students minoring in government and law must take five courses (15 credits) of government and law (GOVT).

## Graphic Design Major (B.A.)

*School of the Arts*

The graphic design major provides individuals with the opportunity to learn the skills, principles and latest industry-standard tools needed to prepare for a wide variety of careers in the graphic design industry. The courses focus on the art of communication and problem solving through the use of type, space, visual imagery and computer software. This rigorous curriculum merges creative visual aesthetics with modern technology, which is necessary for mastering print, illustration or web media production.

Completion of this program will result in a Bachelor of Arts in graphic design with a concentration in illustration, print design or web design awarded by Fairleigh Dickinson University. Admission decisions are made in accordance with criteria, policies and procedures established by FDU. Students must maintain a grade point ratio of 2.00 in their courses at FDU subsequent to admission.

For more information regarding this major contact the graphic design adviser or the director of the graphic design program at the Florham Campus, Madison, New Jersey.

### Requirements for the Bachelor of Arts Degree

#### Illustration Concentration

Illustration allows for a personal style, giving students a competitive edge in their design careers. The illustration concentration gives students the opportunity to develop their abilities in a wide range of marketing, advertising and editorial-art arenas, through the development of critical-thinking skills in visual communication. Students will learn a variety of digital and real-media techniques, with an emphasis on design principles and concept development.

#### Required Theory and Production Courses (33 credits)

	Credits
CGD1212	
Introduction to Graphic Design.....	3
CGD1313	
Creative Imagery with Photoshop.....	3



# Graphic Design

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Credits		Credits		Credits
	CGD1314		CGD4900	
	Illustrator Graphics and Design..... 3		Faculty/Student Research I..... 3	
	CGD1552		CGD4901	
	The Digital Children's Book..... 3		Faculty/Student Research II..... 3	
	CGD2212		CGDH2020	
	Typography 1..... 3		History of Graphic Design..... 3	
	CGD2213		CGDH2216	
	2D Design with the Computer..... 3		Design for Social Responsibility..... 3	
	CGD2215		Note: Six credits in internship experience may be used to fulfill major elective requirements.	
	Editorial Design and Illustration..... 3			
	CGD2370			
	Print Layout..... 3			
	CGD3351		<b>Cognate Requirements (9 credits)</b>	
	Illustration Design..... 3		ART3302	
	CGD4420		Life Drawing	
	Thesis..... 3		or	
	CGD4500		ART1225	
	Portfolio Preparation..... 3		Painting I	
			or	
			ART1169	
			Watercolor Painting I..... 3	
			ART1201	
			Drawing I..... 3	
			ART3350	
			Illustration..... 3	
			<b>Print Design Concentration</b>	
			The print design concentration teaches the creative process of producing visual com- munications and presentations in order to convey a specific message to a targeted audience, specifically intended for printing. The most common types of print-design products are publications, brochures, busi- ness cards, posters, product labels and packaging.	
			<b>Required Theory and Production Courses (33 credits)</b>	
			CGD1212	
			Introduction to Graphic Design..... 3	
			CGD1313	
			Creative Imagery with Photoshop..... 3	
			CGD1314	
			Illustrator Graphics and Design..... 3	
			CGD2212	
			Typography 1..... 3	
			CGD2213	
			2D Design with the Computer..... 3	
			CGD2370	
			Print Layout..... 3	
			CGD3355	
			Package Design..... 3	
			CGD3363	
			Interactive Publishing..... 3	
			CGD4420	
			Thesis..... 3	
			CGD4500	
			Portfolio Preparation..... 3	
			CGDH2020	
			History of Graphic Design..... 3	
			<b>Concentration Electives (12 credits)</b>	
			Choose four from the following:	
			CGD1050	
			Creative Concept Drawing..... 3	
			CGD1552	
			The Digital Children's Book..... 3	
			CGD2170	
			Branding Design..... 3	
			CGD2215	
			Editorial Illustration and Design..... 3	
			CGD2243	
			Children's Book Publishing..... 3	
			CGD3303	
			Web Design..... 3	
			CGD3315	
			WordPress..... 3	
			CGD3351	
			Illustration Design..... 3	
			CGD3352	
			Typography 2..... 3	
			CGD3358	
			Project-based Web Design..... 3	
			CGD3360	
			Freelance Practices..... 3	
			CGD3362	
			Mobile App Design..... 3	
			CGD3373	
			Email Blast Design and Implementation..... 3	
			CGD3374	
			Online Ad Design and Implementation..... 3	
			CGD3380	
			Social Media Marketing Design..... 3	
			CGD3385	
			E-commerce Design..... 3	
			CGD4422	
			Graphic Design Internship I..... 3	
			CGD4423	
			Graphic Design Internship II..... 3	
			CGD4900	
			Faculty/Student Research I..... 3	
			CGD4901	
			Faculty/Student Research II..... 3	
			CGDH2216	
			Design for Social Responsibility..... 3	
			Note: Six credits in internship experience may be used to fulfill major elective require- ments.	

# Graphic Design

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## Cognate Requirements (9 credits)

	Credits
ANIM1750 Motion Graphics with After Effects®.....	3
ANIM1850 3D Computer Modeling or	
ART1260 Ceramic Character Sculpture or	
ART2233 3-Dimensional Design.....	3
ART1201 Drawing I.....	3

## Web Design Concentration

The web design concentration encompasses a variety of skills in the design and production of websites and other internet products including interface design, authoring and coding through the use of proprietary software. Students study how websites work in order to produce the front-end user interface as well as developing the functionality, navigation and interactivity of web-based products.

## Required Theory and Production Courses (30 credits)

CGD1212 Introduction to Graphic Design.....	3
CGD1313 Creative Imagery with Photoshop.....	3
CGD1314 Illustrator Graphics and Design.....	3
CGD2213 2D Design with the Computer.....	3
CGD3303 Web Design.....	3
CGD3315 WordPress.....	3
CGD3358 Project-based Web Design.....	3
CGD4420 Thesis.....	3
CGD4500 Portfolio Preparation.....	3
CGDH2020 History of Graphic Design.....	3

## Concentration Electives (12 credits)

Choose four from the following:

CGD1050 Creative Concept Drawing.....	3
CGD1552 The Digital Children's Book.....	3
CGD2170 Branding Design.....	3

	Credits
CGD2212 Typography 1.....	3
CGD2215 Editorial Design and Illustration.....	3
CGD2243 Children's Book Publishing.....	3
CGD2370 Print Layout.....	3
CGD3351 Illustration Design.....	3
CGD3352 Typography 2.....	3
CGD3355 Package Design.....	3
CGD3360 Freelance Practices.....	3
CGD3362 Mobile App Design.....	3
CGD3363 Interactive Publishing.....	3
CGD3373 Email Blast Design and Implementation.....	3
CGD3374 Online Ad Design and Implementation.....	3
CGD3380 Social Media Marketing Design.....	3
CGD3385 E-commerce Design.....	3
CGD4422 Graphic Design Internship I.....	3
CGD4423 Graphic Design Internship II.....	3
CGD4900 Faculty/Student Research I.....	3
CGD4901 Faculty/Student Research II.....	3
CGDH2216 Design for Social Responsibility.....	3

Note: Six credits in internship experience may be used to fulfill major elective requirements.

## Cognate Requirements (9 credits)

ANIM1750 Motion Graphics with After Effects® or	
ANIM1850 3D Computer Modeling.....	3
ART1201 Drawing I.....	3
ART1260 Ceramic Character Sculpture or	
ART2233 3-Dimensional Design.....	3

## Graphic Design Minor

The 15-credit minor in graphic design will prepare students to understand, formulate and create design solutions for a variety of visual communication problems in print, the web and other two-dimensional design contexts.

To achieve this goal, the courses in this minor seek to instill in students the conceptual foundations for understanding design, the desire to develop visual sensitivity and the requisite traditional and software skills necessary to confront real-world design situations competitively.

## Required Courses

	Credits
CGD1313 Creative Imagery with Photoshop.....	3
CGD1314 Illustrator Graphics and Design.....	3
CGD2213 2D Design with the Computer.....	3
CGD2370 Print Layout.....	3
CGD3303 Web Design.....	3

Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. *No course substitutions will be permitted.*

## Web Design Minor

This 15-credit minor will allow students to explore the field of web design, learning the industry-standard tools and software for development of personal and commercial websites for the computer and mobile devices. The focus is on design, composition, color theory, typography, interaction and responsive design.

## Required Courses (9 credits)

CGD1313 Creative Imagery with Photoshop.....	3
CGD3303 Web Design.....	3
CGD3315 WordPress.....	3

## Electives (6 credits)

Select two of the following courses:

	Credits
ANIM1750	
Motion Graphics with After Effects®.....	3
ANIM1850	
3D Computer Modeling.....	3
CGD3358	
Project-based Web Design.....	3
CGD3360	
Freelance Practices.....	3
CGD3361	
Mobile Web Design.....	3
CGD3362	
Mobile App Design.....	3
CGD3373	
Email Blast Design and Implementation.....	3
CGD3374	
Online Ad Design and Implementation.....	3
CGD3380	
Social Media Marketing Design.....	3
CGD3385	
E-commerce Design.....	3

## History Major (B.A.)

### Department of Social Sciences and History

#### Requirements for the Bachelor of Arts Degree

History is the study of the human past, which is an ongoing process of learning and discovery. The major is designed to provide students with a nuanced understanding of the past and to equip them with the tools and skills necessary to become effective critical thinkers, researchers and writers. History majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

#### Required Courses (15 credits)

	Credits
HIST1150	
World History I.....	3
HIST1151	
World History II.....	3
HIST3802	
Historical Methods.....	3

#### Choose one of the following courses

HIST2400	
The Indian Ocean.....	3
HIST2401	
Pacific Worlds.....	3
HIST2402	
Atlantic Worlds.....	3
HIST2405	
Mediterranean Worlds.....	3

#### Choose one from a 4000-level seminar

(Prerequisite: HIST3802 Historical Methods)

#### Major Elective Courses (18–21 credits)

Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

#### Cognate Requirements (9 credits)

	Credits
ECON1111	
Introduction to Economics.....	3
GEOG1102	
Geography and World Issues.....	3
GOVT1000	
American Government and Politics.....	3

#### Elementary Education Specialization

#### Major Elective Courses (18–21 credits)

Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

#### Cognate Requirement (3 credits)

GEOG1102	
Geography and World Issues.....	3

#### Secondary Education Specialization

#### Major Elective Courses (18–21 credits)

Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

#### Cognate Requirement (3 credits)

ECON1111	
Introduction to Economics.....	3
GEOG1102	
Geography and World Issues.....	3
GOVT1000	
American Government and Politics.....	3

# Humanities

Maxwell Becton College of Arts and Sciences  
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## Elementary Education and Special Education Specialization

### Major Elective Courses (18–21 credits)

Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

### Cognate Requirement (3 credits)

GEOG1102	Credits
Geography and World Issues.....	3

### History Minor

The history minor is *not* for students majoring in history. The history minor consists of 15 credits in history (HIST) courses.

## Humanities Major (B.A.)

*Department of Literature, Language, Writing and Philosophy*

### Requirements for the Bachelor of Arts Degree

The humanities major is designed for students who desire to pursue a broadly based liberal arts education. It offers an integrated experience built around two seminars taken in the sophomore or junior year and the senior year.

Majors will complete a total of 36–39 credits. Two options are available.

#### Standard Program (for students not in the QUEST/Teacher Preparation Program)

A. *Humanities Seminar* — 6 credits  
HUMN2201 Humanities Seminar I — 3 credits completed no later than the first semester of the junior year

HUMN3211 Humanities Seminar II — 3 credits completed in the senior year

B. *Basic Humanities Electives* — 24 credits (No more than one course at the 1000-level in any one discipline)

Literature — 6 credits (any 2000- or 3000- level ENGL, LITS or courses in literature in translation in modern languages)

History — 6 credits

Philosophy — 6 credits

Arts (music, art history, theater, film) — 6 credits in courses emphasizing historical or generic content; production and studio courses are not counted toward the humanities major.

C. *Advanced Electives* — 6–9 credits at 2000- or 3000-level in any combination of disciplines in Category B. An internship experience may be included in this group of courses.

#### Humanities B.A./QUEST/Teacher Preparation — Elementary Education

This option provides sufficient credits in English and history courses to permit QUEST students to qualify for middle-school certification as well.

A. *Humanities Seminar* — 6 credits  
HUMN2201 Humanities Seminar I — 3 credits completed no later than the first semester of the junior year

HUMN3211 Humanities Seminar II — 3 credits completed in the senior year

#### B. Humanities Electives

Literature — 9 credits (any 2000- to 4000-level courses in ENGL, LITS or literature in translation in modern languages)

History — 12 credits (at least 3 credits in world history and 3 credits in American history)

Philosophy — 3 credits

Arts — 3 credits (any course in art history, music, theater, film emphasizing historical or generic content; production and studio courses are not counted toward the major)

Additional electives in history, literature, philosophy, art or internship — 3–6 credits

Note that ENGW1101 College Writing Workshop and ENGW1102 Research Writing Workshop count toward the credits in English, and GOVT1000 American Government and Politics is counted toward the credits in history required for certification. GOVT1000 American Government and Politics is taken to fulfill the College's general education requirements in social and behavioral sciences.

### Humanities Minor

The humanities minor is for students *not* majoring in humanities. Students minoring in humanities must take 18 credits distributed as below:

#### Required Course (3 credits)

HUMN2201	Credits
Humanities Seminar I.....	3

#### Introductory Humanities Electives (6 credits)

Introductory (1000- to 2000-level) courses in English, literature, film (non-production), history, philosophy, theater (non-studio), art (non-studio) and music (non-performance).

#### Advanced Humanities Electives (9 credits)

Any advanced courses (2000-, 3000-, 4000-level) in subjects above; no more than 6 credits in a single discipline.

## Mathematics Major (B.A.)

*Department of Mathematics, Computer Science and Physics*

### Requirements for the Bachelor of Arts Degree

Students should see College requirements (pages 54–55) for details of the general education requirements. Majors must complete 40–41 credits of courses in mathematics and computer science and 8 credits in physics to be distributed as follows:

#### Required Courses (26 credits)

CSCI2215	Introduction to Computer Science
MATH1205,	Calculus I, II, III
MATH2202,	
MATH2203	
MATH2255	Discrete Structures
MATH3220	Linear Algebra
MATH3251	Introductory Analysis
	or
MATH3232	Multivariable Advanced Calculus
MATH3303	Probability

#### Elective Courses (15 credits)

Five courses to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures or, with the permission of the department, from the graduate offerings in mathematics. With the permission of the department, up to 6 credits from the 2000- or higher-level offerings in computer science (CSCI designation) may be substituted for mathematics electives.

At least one of the following pairs of courses must be completed.

##### Pair I

MATH3251	Introductory Analysis
MATH3335	Complex Variables
	or

##### Pair II

MATH3309	Numerical Analysis
MATH3318	Differential Equations
	or

##### Pair III

MATH3210	Number Theory
MATH3225	Abstract Algebra
	or

##### Pair IV

MATH3318	Differential Equations
----------	------------------------

MATH3371	Modeling and Simulation
	or

##### Pair V

MATH2255	Discrete Structures
MATH3306	Combinatorics
	or

##### Pair VI

MATH3220	Linear Algebra
MATH3331	Higher Geometry
	or

##### Pair VII

MATH3303	Probability
MATH3305	Advanced Probability and Statistics

#### Required Physics Courses (8 credits)

Majors must also complete PHYS2003, PHYS2013, PHYS2023 and PHYS2004, PHYS2014, PHYS2024 General Physics with Calculus I and II. PHYS2003, PHYS2013 will be applied to the science requirements of the general education requirements.

Students are urged to take CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I in fulfillment of the additional science requirement of the general education requirements.

#### Actuarial Science Concentration

Students planning to major in mathematics with a concentration in actuarial science should complete all requirements for the B.A. degree in mathematics with the selection of the following courses as electives in the major:

MATH3305	Advanced Probability and Statistics
MATH3309	Numerical Analysis

To fulfill the general education requirements, they are required to take:

ECON2001	Introduction to Microeconomics
ECON2102	Introduction to Macroeconomics

Additional cognate requirements include:

ACCT2021	Introductory Financial Accounting
CSCI1205	Introduction to Computer Programming
CSCI2215	Introduction to Computer Science
FIN3250	Principles of Financial Analysis
FIN3310	Intermediate Financial Analysis

The above requirements will assist students in preparing for actuarial exams 1 and 2, which are jointly administered by the Society of Actuaries and the Casualty Actuarial Society.

Independent-study courses are also available to further develop the fundamental mathematical/statistical concepts applicable to insurance problems. Specifically, the student may

1. Study the Theory of Interest and Life Contingencies to strengthen their preparation for exam 2 and/or
2. Study Actuarial Mathematics and Models to begin preparation for exam 3.

#### Computer Science Concentration

Students planning to major in mathematics with a concentration in computer science should choose CSCI1205 Introduction to Computer Programming in fulfillment of the quantitative analysis requirement of the general education requirements.

#### Required Courses (34 credits)

CSCI2215	Introduction to Computer Science.....	3
CSCI2216	Introduction to Computer Science II.....	3
CSCI2233	Data Structures and Algorithms.....	3
CSCI2255	Discrete Structures.....	3
MATH1203	Calculus I.....	4
MATH2202	Calculus II.....	4
MATH2203	Calculus III.....	4
MATH3220	Linear Algebra.....	3
MATH3251	Introductory Analysis	
	or	
MATH3232	Multivariable Advanced Calculus.....	3
MATH3303	Probability.....	3

#### Elective Courses (15 credits)

Two courses (3 credits each) to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures or, with the permission of the department, from the graduate offerings in mathematics and three courses (3

# Mathematics

Maxwell Becton College of Arts and Sciences  
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credits each) to be selected from the 3000- or higher-level offerings in computer science (CSCI designation).

## Required Physics Courses (8 credits)

Majors must also complete PHYS2003, PHYS2013, PHYS2023 and PHYS2004, PHYS2014, PHYS2024 General Physics with Calculus I and II. PHYS2003, PHYS2013 will be applied to the laboratory science requirement of the core curriculum.

Students are urged to take CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I in fulfillment of the additional science requirement of the general education requirements.

## Financial Mathematics Concentration

Students planning to major in mathematics with a concentration in financial mathematics should complete all requirements for the B.A. degree in mathematics with the selection of the following courses as electives in the major:

MATH3307 Mathematics of Finance  
MATH3309 Numerical Analysis  
MATH4007 Financial Mathematics II  
In addition to 12 credits of mathematics electives

To fulfill the general education requirements, students are required to take:

ECON2001 Introduction to Microeconomics  
ECON2102 Introduction to Macroeconomics

Additional cognate requirements include:

ACCT2021 Introductory Financial Accounting  
CSCI1205 Introduction to Computer Programming  
CSCI2215 Introduction to Computer Science  
FIN3250 Principles of Financial Analysis  
FIN3310 Intermediate Financial Analysis  
FIN4341 Financial Markets and Institutions  
FIN4343 Securities and Investments  
FIN4405 Analytical Methods in Finance

## Mathematical Statistics Minor

This 15-credit minor is for students in the Silberman College of Business and Maxwell Becton College of Arts and Sciences.

### Required Courses (15 credits)

	Credits
MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH3300	
Statistics I.....	3
MATH3303	
Probability.....	3

## Mathematics for Cybersecurity Minor

This 16-credit minor is for non-computer science majors.

### Required Courses (16 credits)

CSCI1205	
Introduction to Computer Programming.....	3
MATH1133	
Applied Statistics.....	3
MATH1203	
Calculus I.....	4
MATH2255	
Discrete Structures.....	3
MATH3355	
Introduction to Cryptography.....	3

## Mathematics for the Business World Minor

### Required Courses (15 credits)

MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH3303	
Probability.....	3
MATH3371	
Modeling and Simulation	
or	
MATH3305	
Advanced Probability and Statistics	
or	
MATH3307	
Mathematics of Finance.....	4

## Mathematics Minor

The mathematics minor is for students *not* majoring in mathematics. Students minor-ing in mathematics must take 18 credits in mathematics distributed as follows:

### Required Courses (11 credits)

	Credits
MATH1203	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH3220	
Linear Algebra.....	3

### Elective Courses (7 credits)

Seven credits of additional course work in mathematics to be selected from the 2000- or higher-level offerings in mathematics (MATH designation).

# Medical Imaging Sciences

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## Medical Imaging Sciences Major (B.S.M.I.S.)

### Department of Biological and Allied Health Sciences

Completion of this program will result in a Bachelor of Science in Medical Imaging Sciences with a concentration in diagnostic medical sonography or vascular technology awarded jointly by Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 96 credits during their first three years at FDU. They then must apply for acceptance to the professional component at Rutgers SHP for their senior year. A joint degree is awarded upon completion of the professional component.

Admission to the clinical courses at Rutgers SHP requires a separate application, usually in the junior year. Consult the program adviser for application details and time lines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU. Students admitted to the clinical program must maintain a minimum grade point ratio of 2.85 and a "C" or better in their prerequisite courses at FDU subsequent to admission.

For more information regarding these degrees, contact the allied health adviser, Florham Campus.

Also see "Allied Health Sciences Majors," page 64.

### Requirements for the Bachelor of Science in Medical Imaging Sciences Degree

#### Biology Requirements Credits

BIOL1110	
Medical and Pathological Terminology.....	2
BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL1205, BIOL1206	
Anatomy and Physiology I, II*.....	8
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory)....	4
BIOL3009, BIOL3019	
Microbiology (Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4

#### Chemistry Requirements

CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2

#### Physics Requirements

PHYS1001, PHYS1011;	
PHYS1002, PHYS1012	
General Physics I, II — (Lecture and Laboratory)	
4 credits each semester	
or	
PHYS2003, PHYS2013;	
PHYS2004, PHYS2014	
General Physics with Calculus I, II — (Lecture and Laboratory)	
4 credits each semester.....	8

After completion of three years of study (a minimum of 96 credits) at FDU, the program is completed in 12–15 months at the Rutgers School of Health Professions.

With the successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Medical Imaging Sciences.

### Concentrations

There are two concentrations available within this degree:

#### Diagnostic Medical Sonography Concentration

Diagnostic medical sonographers provide patient services using diagnostic ultrasound under the supervision of a licensed physician. Sonographers look for subtle differences between healthy and pathological areas and decide what images to include in their report. The sonographer may provide this service in a variety of medical settings where the physician is responsible for the use and interpretation of ultrasound procedures. For requirements see "Requirements for the Bachelor of Science in Medical Imaging Sciences Degree." A grade of B- or better in BIOL1205, BIOL1206 Anatomy and Physiology I, II is required for this concentration.

#### Vascular Technology Concentration

Vascular technologists assist physicians in the diagnosis of disorders affecting circulation by use of ultrasound instrumentation. They noninvasively record vascular information such as blood pressure, oxygenation and circulation throughout the body. For requirements see "Requirements for the Bachelor of Science in Medical Imaging Sciences Degree." A grade of B- or better in BIOL1205, BIOL1206 Anatomy and Physiology I, II and CPR Certification are required for this concentration.

\*A grade of B- or better is required for Diagnostic Medical Sonography and Vascular Technology concentrations.

# Philosophy

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## Philosophy Major (B.A.)

*Department of Literature,  
Language, Writing and Philosophy*

### Requirements for the Bachelor of Arts Degree

Philosophy as a major can be combined with any other major and/or minor in the liberal arts and social sciences. Students concentrating in philosophy must complete 30 credits (10 courses) in philosophy.

#### Required Courses (9 credits)

To be taken in the first or second semester:

	Credits
PHIL1101	
Introduction to Logic.....	3
PHIL1102	
Introduction to Philosophy.....	3

To be taken in the last year:

PHIL4401	
Philosophy Seminar.....	3

#### Elective Courses (21 Credits)

To be chosen from the available courses. The student must consult with his/her adviser to make sure that the distribution is reasonable and representative across the subfields of philosophy.

*History of Philosophy, Metaphysics, Epistemology, Philosophy of Language, Philosophy of Mind, Philosophy of Science*

PHIL1106	
Ideas of Happiness.....	3
PHIL1107	
Dreams and the Imagination.....	3
PHIL1112	
Critical Thinking for College and Life.....	3
PHIL1114	
Philosophy Through Movies.....	3
PHIL1439	
Nietzsche: Philosopher as Psychologist....	3
PHIL2102	
Space and Time.....	3
PHIL2201	
Ancient Philosophy.....	3
PHIL2202	
Modern Philosophy.....	3
PHIL2203	
Contemporary Philosophy.....	3
PHIL2828	
Immortality and Reincarnation.....	3
PHIL3306	
The Problem of Evil.....	3

*Philosophy of Religion, Ethics, Social and Political Philosophy, Philosophy of Art*

	Credits
PHIL1103	
Ethics.....	3
PHIL1106	
Ideas of Happiness.....	3
PHIL1119	
Legal Issues from a Philosophic Perspective.....	3
PHIL1440	
Biomedical Ethics.....	3
PHIL2008	
Ethical Issues in the Movies.....	3
PHIL2201	
Ancient Philosophy.....	3
PHIL2202	
Modern Philosophy.....	3
PHIL2203	
Contemporary Philosophy.....	3
PHIL2205	
Social and Political Philosophy.....	3
PHIL2207	
Philosophy of Religion.....	3
PHIL2208	
Crime and Punishment.....	3
PHIL2210	
What is Radical Politics?.....	3
PHIL2211	
Philosophy and Film.....	3
PHIL2432	
Philosophy of Law.....	3
PHIL2777	
Formal Logic.....	3
PHIL2828	
Immortality and Reincarnation.....	3
PHIL3005	
War and Philosophy.....	3

Students majoring in philosophy must complete the humanities area requirement of the general education requirements in areas other than philosophy.

Students should see College requirements on pages 54–55 for details of the general education requirements.

#### Philosophy Minor

The philosophy minor is for students *not* majoring in philosophy. The philosophy minor consists of 15 credits distributed as below:

#### Required Courses (6 credits)

PHIL1101	
Introduction to Logic.....	3
PHIL1102	
Introduction to Philosophy.....	3

The remaining 9 credits should be selected from the following courses:

	Credits
PHIL1103	
Ethics.....	3
PHIL1106	
Ideas of Happiness.....	3
PHIL1107	
Dreams and the Imagination.....	3
PHIL1112	
Critical Thinking for College and Life.....	3
PHIL1114	
Philosophy Through Movies.....	3
PHIL1119	
Legal Issues from a Philosophic Perspective.....	3
PHIL1120	
Language and Communication.....	3
PHIL1440	
Biomedical Ethics.....	3
PHIL1439	
Nietzsche: Philosopher as Psychologist.....	3
PHIL2008	
Ethical Issues in the Movies.....	3
PHIL2102	
Space and Time.....	3
PHIL2201	
Ancient Philosophy.....	3
PHIL2202	
Modern Philosophy.....	3
PHIL2203	
Contemporary Philosophy.....	3
PHIL2205	
Social and Political Philosophy.....	3
PHIL2207	
Philosophy of Religion.....	3
PHIL2208	
Crime and Punishment.....	3
PHIL2210	
What is Radical Politics?.....	3
PHIL2828	
Immortality and Reincarnation.....	3
PHIL3005	
War and Philosophy.....	3
PHIL3306	
The Problem of Evil.....	3

Note: Students who previously declared an 18-credit minor in this area must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. *No course substitutions will be permitted.*



# Physical Education • Psychology

Maxwell Becton College of Arts and Sciences  
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## Physical Education

### Associate Dean's Office

The University encourages student participation in those physical activities that have social significance and allow for lifetime participation and interest. With this philosophy in mind, the emphasis in physical education courses is on those activities that have enduring value.

## Psychology Major (B.A.)

### Department of Psychology and Counseling

#### Requirements for the Bachelor of Arts Degree

The psychology major is designed for students to gain a broad background in the scientific study and philosophical understanding of people, along with the practical applications of the discipline. For those students who wish to pursue advanced degrees, the program provides the basic knowledge and tools necessary for graduate study.

Students majoring in psychology must complete a minimum of 32 credits of course work in psychology. Students should see College requirements on pages 54–55 for details of the general education requirements. The required courses and suggested sequence are:

	Credits
PSYC1201 General Psychology (first or second semester).....	3
PSYC2210 Psychological Statistics (third semester).....	4
PSYC2211 Research Methods (fourth semester).....	4
PSYC4291 History and Systems of Psychology.....	3
In addition, students are required to select one of the listed courses from each of the following content areas of psychology.	
<b>Area I: Experimental Psychology</b>	
PSYC3030 Advanced Experimental Psychology.....	3
PSYC3032 Physiological Psychology.....	3
PSYC3331 Theories of Learning.....	3
PSYC3333 Sensation and Perception.....	3
PSYC3334 Psychopharmacology.....	3
PSYC3335 Cognitive Psychology.....	3

#### Area II: Social Psychology

Credits

PSYC3011 Group Dynamics.....	3
PSYC3015 Theories of Personality.....	3
PSYC3310 Social Psychology.....	3

#### Area III: Clinical Psychology

PSYC3001 Human Development (Child).....	3
PSYC3005 Abnormal Psychology.....	3
PSYC3302 Human Development (Adolescent).....	3

#### Area IV: Industrial Psychology

PSYC3320 Managerial Psychology.....	3
PSYC3322 Industrial Psychology.....	3

The remaining credits may be electives selected, with the guidance of the students' faculty advisers, from the PSYC3000 and PSYC4000 series of psychology course offerings. It is suggested that those students who seek a professional career in psychology:

1. Avoid an overconcentration in any one area of psychology at the undergraduate level and have as broad an exposure as possible to the entire field.
2. Become involved in an independent study project or internship at some point during their fifth through eighth semester of study.

Students concentrating in psychology must complete the social-behavioral sciences requirement of the general education requirements in an area other than psychology.

#### Behavioral Neuroscience Concentration

The psychology department, in conjunction with the biological and allied health sciences and chemistry departments, offers a course of study leading to a B.A. in psychology with a concentration in behavioral neuroscience. This is designed for students wishing to earn a baccalaureate degree with an emphasis on the physiological basis of behavior. The curriculum of 120 credits is structured to maximize the benefits available through the interdisciplinary study of psychology, biology and chemistry. Undergraduate course requirements provide for the integrated understanding of the phar-

# Sociology

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macology of drug action and brain function as they relate to the discipline of behavioral neuroscience. Major core requirements include two semesters of general chemistry and laboratories, one semester of organic chemistry and laboratory, one semester of cell biology and laboratory and one semester of lectures and laboratories on the anatomy and physiology of the human body. Psychology requirements include general psychology, two semesters of statistical and experimental methods, physiological psychology and psychopharmacology. Course study culminates with an advanced neuroscience methods seminar. Graduates would be prepared for graduate study in psychology, biology or neuroscience. Career openings exist in pharmaceutical research, pharmaceutical sales and marketing, hospital laboratory technology and animal care.

## Major Requirements (46 credits)

### Required Major Courses

<b>(40 credits)</b>	Credits
BIOL1202	
Introduction to Molecules, Cells and Genes.....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	1
PSYC1201	
General Psychology.....	3
PSYC2210	
Psychological Statistics.....	4
PSYC2211	
Research Methods.....	4
PSYC3032	
Physiological Psychology.....	3
PSYC3334	
Psychopharmacology.....	3
PSYC4130	
Behavioral Neuroscience Methods.....	4
PSYC4447	
Medical Psychology.....	3

## Major Elective Courses (6 credits)

Select from the following:

	Credits
CHEM4430	
Selected Topics in Chemistry.....	1–3
CHEM4685	
Pharmacology.....	3
PSYC3333	
Sensation and Perception.....	3
PSYC3335	
Cognitive Psychology.....	3

## Psychology Minor

The psychology minor is for students *not* majoring in psychology. The psychology minor (15 credits) consists of

### Required Course (3 credits)

PSYC1201	
General Psychology.....	3

### Electives (12 credits)

PSYC courses (3 credits each).....12

Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor **MUST** complete all requirements affiliated with the 15-credit minor. *No course substitutions will be permitted.*

## Combined Accelerated B.A./M.A. Program

The department also offers an accelerated B.A./M.A. program. For more information, see page 223.

# Sociology Major (B.A.)

## Department of Social Sciences and History

Students majoring in sociology develop the knowledge and analytical skills needed to pursue entry-level positions and professional careers in law, business, criminal justice, education, government, health and medicine, human resources, public relations, social work and social services. In addition, the bachelor's degree is a first step for graduate work in sociology in preparation for a career as a professor or researcher. Sociology majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

## Requirements for the Bachelor of Arts Degree

Students should see College requirements on pages 54–55 for details of the general education requirements. Students majoring in sociology must complete 30–45 credits of course work in the area of sociology. The following courses must be included in the 30 credits.

SOCI1201	Introduction to Sociology
SOCI2203	Methods in Social Research
SOCI3021	Classical Sociological Theory or
SOCI3022	Contemporary Social Theory

The remaining 21–36 credits of course work shall be selected from SOCI2000, SOCI3000 and SOCI4000 courses with the guidance of the students' faculty advisers.

Students majoring in sociology may choose to take the criminology or prelaw minor, see page 79 and pages 62–63.

## Anthropology Minor

Students minoring in anthropology must take ANTH1202 Cultural Anthropology (3 credits) plus four other courses (12 credits) in anthropology (ANTH) for a total of 15 credits.

## Sociology Minor

The sociology minor is for students *not* majoring in sociology. Students minoring in sociology must take SOCI1201 Introduction to Sociology plus four other courses (12 credits) in sociology (SOCI) for a total of 15 credits.

## Theater Arts Major (B.A.)

### School of the Arts

The theater arts program at FDU allows a student interested in making a career in theater have a choice of one of six concentrations offered: **acting, design and technical theater, directing, musical theater, playwrighting and theater studies.** Students will begin their studies at the Florham Campus in Madison, New Jersey; spend a semester in England at the University's Wroxton College\*; then return to the Florham Campus to spend two intensive years that will include internships with a choice of casting directors, talent agents or local or Manhattan-based theater companies. Madison's proximity to New York City will also enable students to take advantage of the many opportunities available in the "theater capital of the world."

### Requirements for the Bachelor of Arts Degree

Concentration choices should be made in consultation with an adviser. Students should see College requirements on pages 54–55 for details of the general education requirements.

### Concentrations

Six areas of concentration are offered.

#### Acting Concentration

##### Foundation Courses (36 credits)

	Credits
DAN2506	
Movement for the Actor.....	3
THEA1203	
Basic Acting I.....	3
THEA2005	
Directing I.....	3
THEA2204	
Intermediate Acting.....	3
THEA2209	
Stagecraft I.....	3
THEA3336	
Acting for Film and Television.....	3
THEA3358	
Acting Shakespeare.....	3
THEA4405	
Senior Seminar: The Working Actor.....	3

\*To qualify for study at Wroxton College, students must maintain a 3.00 grade point ratio. If students do not qualify to study at Wroxton College, they may choose to minor in fine arts, with a theater concentration.

	Credits
THEA4420	
Advanced Acting.....	3
THEAH1201	
Development of the Theater:	
Ancient to Elizabethan.....	3
THEAH1202	
Development of the Theater:	
Restoration to Today.....	3
THEAH2255	
Playwriting and Dramatic	
Structure.....	3

#### Cognate Requirements (9 credits)

One of the following courses offered at Wroxton College, England	
ENGL3421	
Not of an Age ... But for All Time.....	3
ENGL3422	
"The Play's the Thing".....	3
ENGL3424	
"To Hold the Mirror Up to Nature".....	3
ENGL3456	
20th-century Drama.....	3
<i>Plus two of the following</i>	
SPCH1107	
Fundamentals of Speech.....	3
SPCH1204	
Voice for the Actor.....	3
SPCH2004	
Speech and Diction.....	3

#### Major Electives (9 credits)

Students should choose three from among the following recommended courses.	
DAN3316	
Stage Combat I.....	1
THEA1005	
Makeup for the Stage.....	1
THEA2510	
Stage Management.....	3
THEA2339	
Musical Theater Workshop.....	3
THEA3339	
The London Theatre Experience.....	3
THEAH3337	
Night at the Theater.....	3
Other courses are offered periodically.	

## Design and Technical Theater Concentration

### Foundation Courses (30 credits)

	Credits
THEA2005	
Directing I.....	3
THEA2209	
Stagecraft I.....	3
THEA2215	
Set Design I.....	3
THEA2310	
Stage Management.....	3
THEA3110	
Stagecraft II.....	3
THEA3112	
Lighting for the Stage.....	3
THEA3351	
Production and Crew I.....	1
THEA3352	
Production and Crew II.....	1
THEA3353	
Production and Crew III.....	1
THEAH1201	
Development of the Theater:	
Ancient to Elizabethan.....	3
THEAH1202	
Development of the Theater:	
Restoration to Today.....	3

#### Cognate Requirement (3 credits)

One of the following courses offered at Wroxton College, England	
ENGL3421	
Not of an Age ... But for All Time.....	3
ENGL3422	
"The Play's the Thing".....	3
ENGL3424	
"To Hold the Mirror Up to Nature".....	3
ENGL3456	
20th-century Drama.....	3

#### Major Electives (15 credits)

Students should choose five from among the following recommended courses.	
ART1201	
Drawing I.....	3
ART2236	
Introduction to Color.....	3
CGD1313	
Creative Imagery with Photoshop.....	3
THEA2216	
Set Design II.....	3
THEA3325	
Stagecraft III.....	3
THEA4415	
Building the Scenic Model.....	3
THEA4416	
Rendering and Drafting for the	
Theater.....	3

# Theater Arts

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Directing Concentration

### Foundation Courses (45 credits)

	Credits
LITS3103	
Modern Drama: 1880–1930.....	3
THEA1203	
Basic Acting I.....	3
THEA2005	
Directing I.....	3
THEA2209	
Stagecraft I.....	3
THEA2215	
Set Design I.....	3
THEA2310	
Stage Management.....	3
THEA3006	
Directing II.....	1
THEA3112	
Lighting for the Stage.....	3
THEA3351	
Production and Crew I.....	1
THEA3352	
Production and Crew II.....	1
THEA3353	
Production and Crew III.....	1
THEA3358	
Acting Shakespeare.....	3
THEA4800	
Independent Study in Theater/ Directing.....	3
THEAH1201	
Development of the Theater: Ancient to Elizabethan.....	3
THEAH1202	
Development of the Theater: Restoration to Today.....	3
THEAH2255	
Playwriting and Dramatic Structure.....	3
THEAH3337	
Night at the Theater.....	3

### Cognate Requirement (3 credits)

One of the following courses offered at Wroxton College, England	
ENGL3421	
Not of an Age ... But for All Time.....	3
ENGL3422	
“The Play’s the Thing”.....	3
ENGL3424	
“To Hold the Mirror Up to Nature”.....	3
ENGL3456	
20th-century Drama.....	3

## Musical Theater Concentration

### Foundation Courses (33 credits)

	Credits
DAN1320	
Beginning Dance I	
or	
DAN2505	
Dance II.....	3
MUSIC1015	
Basic Vocal Technique.....	3
SPCH1204	
Voice for the Actor.....	3
THEA1203	
Basic Acting I.....	3
THEA2204	
Intermediate Acting.....	3
THEA2209	
Stagecraft I.....	3
THEA2339	
Musical Theater Workshop.....	3
THEA2340	
Advanced Musical Theater Workshop....	3
THEA4405	
Senior Seminar: The Working Actor.....	3
THEAH1201	
Development of the Theater: Ancient to Elizabethan	
or	
THEAH1202	
Development of the Theater: Restoration to Today.....	3
THEAH3344	
History of the Musical.....	3

### Cognate Requirements (9 credits)

One of the following courses offered at Wroxton College, England	
ENGL3421	
Not of an Age ... But for All Time.....	3
ENGL3422	
“The Play’s the Thing”.....	3
ENGL3424	
“To Hold the Mirror Up to Nature”.....	3
ENGL3456	
20th-century Drama.....	3
And choose two from the following	
DAN2020	
Basic Tap.....	3
DAN2021	
Ballet I.....	3
MUSIH2221	
Fundamentals of Music Theory.....	3
SPCH1107	
Fundamentals of Speech.....	3

## Major Electives (12 credits)

	Credits
DAN2506	
Movement for the Actor.....	3
DAN2600	
Theater Dance.....	3
MUSIC1020	
Chorus.....	1
MUSIC1376	
Private Instruction in Voice.....	1
MUSIC2015	
Vocal Technique II.....	3
SPCH2004	
Speech and Diction.....	3
THEA1005	
Makeup for the Stage.....	1
THEA3336	
Acting for Film and Television.....	3
THEA3339	
The London Theatre Experience.....	3
THEA4420	
Advanced Acting.....	3
THEAH3337	
Night at the Theater.....	3

## Playwriting Concentration

### Foundation Courses (31 credits)

CREW4001, CREW4002	
Senior Writing Project I, II.....	6
FILM2250	
Screenwriting I.....	3
THEA1203	
Basic Acting I.....	3
THEA2005	
Directing I.....	3
THEA3351	
Production and Crew I.....	1
THEA4800	
Independent Study in Theater/ Internship with Playwrights Theater of New Jersey.....	3
THEAH1201	
Development of the Theater: Ancient to Elizabethan.....	3
THEAH1202	
Development of the Theater: Restoration to Today.....	3
THEAH2255	
Playwriting and Dramatic Structure.....	3
THEAH3337	
Night at the Theater.....	3
Choose two from the following	
LITS3103	
Modern Drama: 1880–1930.....	3
LITS3104	
Contemporary American Drama.....	3
LITS3105	
Contemporary European Drama.....	3

# Theater Arts

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Cognate Requirement (3 credits)

One of the following courses offered at  
Wroxton College, England

	Credits
ENGL3421	
Not of an Age ... But for All Time.....	3
ENGL3422	
“The Play’s the Thing”.....	3
ENGL3424	
“To Hold the Mirror Up to Nature”.....	3
ENGL3456	
20th-century Drama.....	3

## Theater Studies Concentration\*

### Foundation Courses (29 credits)

DAN2506	
Movement for the Actor.....	3
DAN3316	
Stage Combat I.....	1
THEA1110	
Introduction to Acting.....	3
THEA2005	
Directing I.....	3
THEA2209	
Stagecraft I.....	3
THEA2310	
Stage Management.....	3
THEA3351	
Production and Crew I.....	1
THEAH1201	
Development of the Theater:	
Ancient to Elizabethan.....	3
THEAH1202	
Development of the Theater:	
Restoration to Today.....	3
THEAH2255	
Playwriting and Dramatic Structure.....	3
THEAH3337	
Night at the Theater.....	3

### Major Electives (16 credits)

Choose from the selection below.

DAN1320	
Beginning Dance I.....	3
MUSIH2221	
Fundamentals of Music Theory.....	3
THEA1005	
Makeup for the Stage.....	3
THEA2215	
Set Design I.....	3
THEA2220	
Introduction to Acting II	
(for non-majors).....	3
THEA2339	
Musical Theater Workshop.....	3

\*Students with a theater studies concentration are not required to spend a semester at Wroxton College, England.

	Credits
THEA3112	
Lighting for the Stage.....	3
THEA3336	
Acting for Film and Television.....	3
THEA3339	
The London Theatre Experience.....	3

## Dance Studies Minor

The dance studies minor provides a comprehensive overview of dance as an art form through technique, dance history, dance appreciation and choreographic practice. The minor develops a dancer’s technique, exposes students to a history of the art form and provides study in creative choreographic principles and practice.

### Required Courses (9 credits)

DAN1320	
Beginning Dance I	
or	
DAN2505	
Dance II.....	3
DAN2507	
Choreography.....	3
DANH1322	
Dance History and Appreciation.....	3

### Elective Courses (6 credits)

Select two of the following:

DAN2020	
Basic Tap.....	3
DAN2021	
Ballet I.....	3
DAN2022	
Ballet II.....	3
DAN2505	
Dance II (if not taken to fulfill	
required course).....	3
DAN2506	
Movement for the Actor.....	3
DAN2600	
Theater Dance.....	3
DAN3020	
Advanced Tap.....	3

## Music Minor

### Required Courses (9 credits)

MUSIH2211	
Survey of Music: Ancient to 1800.....	3
MUSIH2212	
Survey of Music: 1800 to Today.....	3
MUSIH2221	
Fundamentals of Music Theory.....	3

### Electives (9 credits)

MUSIC1015	
Basic Vocal Technique.....	3
MUSIC1020	
Chorus.....	1

	Credits
MUSIC1050	
Band.....	1
MUSIC1361	
Private Instruction in Bass.....	1
MUSIC1375	
Private Instruction in Piano.....	1
MUSIC1376	
Private Instruction in Voice.....	1
MUSIC1377	
Private Instruction in Woodwinds I.....	1
MUSIC1391	
Private Instruction in Guitar.....	1
MUSIC1396	
Private Instruction in Violin I.....	1
MUSIC2339	
Musical Theater Workshop.....	3
MUSIC4430	
Private Instruction in Clarinet.....	1–3
MUSIC4800	
Independent Study in Music.....	1–3
MUSIH1021	
Popular Music and Jazz.....	3
MUSIH2205	
Music for the Movies.....	3
MUSIH3344	
History of the Musical.....	3

## Musical Theater Minor

### Required Courses (9 credits)

DAN1320	
Beginning Dance I	
or	
DAN2505	
Dance II.....	3
THEA1110	
Introduction to Acting.....	3
THEA2339	
Musical Theater Workshop.....	3

### Choose three other courses from the following (9 credits)

DAN2020	
Basic Tap	
or	
DAN2021	
Ballet I.....	3
DAN2506	
Movement for the Actor.....	3
THEA2340	
Advanced Musical Theater Workshop...3	
THEAH3344	
History of the Musical	
or	
MUSIH2221	
Fundamentals of Music Theory.....	3

# Faculty & Staff

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Theater Arts Minor

The theater arts minor offers a foundation in the diverse aspects of contemporary theater. The minor focuses on the collaborative approach to theatrical production allowing students to study both the practical and academic aspects of theater. Students emerge with knowledge of acting, directing, stagecraft and dramaturgy/theater history. Minors are also encouraged to audition for or to crew departmental productions on the Florham Campus' main-stage proscenium theater in Dreyfuss Building and in the Barn Theater. Between these spaces, the School of the Arts mounts a full season of musicals, classics and contemporary productions each year, providing opportunities for hands-on application of classroom learning.

### Required Courses (12 credits)

	Credits
THEA1110	
Directing I.....	3
THEA2005	
Directing I.....	3
THEA2209	
Stagecraft I.....	3
THEAH1201	
Development of the Theater: Ancient to Elizabethan	
or	
THEAH1202	
Development of the Theater: Restoration to Today.....	3

### Select one of the following (3 credits)

THEA2220	
Introduction to Acting II.....	3
THEAH2255	
Playwriting and Dramatic Structure.....	3

Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. *No course substitutions will be permitted.*

## Faculty & Staff

### Administration

G. Weinman, Dean  
J. Lehr, Associate Dean for Academic Affairs

### School of the Arts

H. Libov (Film), Chair; R. Barkley (Animation), R. Chace (Creative Writing), J. Cinco (Computer Graphics), D.G. Cochrane (Studio Arts), A. Cohen (Music), D. Daniel (Creative Writing), D. Grand (Creative Writing), E. Hoffman (Film), S. Hollis (Theater), D. Landau (Film), S. Lents (Theater), C. Loewus (Theater), J. Moonelis (Studio Arts), J. O'Neil (Web Design), J. Shaw (Animation), R. Steinke (Creative Writing)

### Department of Biological and Allied Health Sciences

J. Salierno, Chair; J. Agugliaro, M. El-Sherbeini, T. Loreng, P. Melloy, E. Myers-Arnold, B. Narayanan, C. O'Connor-Fitzpatrick, B. Olechnowski, H. Parzer, S. Reynolds

### Department of Chemistry and Biochemistry

A. Teslja, Chair; G. Anderle, S. Bashkova, J. Bogart, M. Elshaer, E. Salaski

### Department of Communication Studies

G. Radford, Chair; C. Caldiero, K. Dunsmore, C. Foster, K. Haspel, S. Latson, J. Lehr

### Department of Literature, Language, Writing and Philosophy

M. Boyd (Literature), Chair; P. Bazán-Figuera (Spanish/Literature), S. Belen-Ramos (Spanish/Literature), P. Benson (Literature), L. Corces (Spanish/Literature), K. Douglas (College Writing), A. Fader (College Writing), N. Ghosh (Literature), O. Makridis (Philosophy), G. Pastorino (French/Italian/Literature), A. Patrick (Literature), F. Pinto (College Writing), B. Rabinowitz (College Writing), E. Reid (College Writing), K. Sammond (College Writing), G. Weinman (Literature), R. Young (College Writing)

### Department of Mathematics, Computer Science and Physics

L. Khreisat, Chair; I. Darwish, R. Mayans, J. Namazi, P. Penrice, D. Richton, K. Sharma, G. Singh, N. Sinha, M. Slaby, Y. Teper, R. Wagner

### Department of Psychology and Counseling

A. Tasso, Chair; D. Brown, D. Calcagnetti, T. Conklin, D. DeNigris, R. Griffo, K. Shirley, V. Viglione, D. Wentworth

### Department of Social Sciences and History

G. Darden (History), Chair; P. Burkholder (History), D. Cassino (Government and Law), F. Degiuli (Sociology), R. Houle (History), L. Huertas Castillo (History), K. Jenkins (Government and Law), R. Nasser (Sociology), R. Nisa (Geography), J. Nowotny (Criminology), B. Peabody (Government and Law), D. Rosen (Anthropology/Sociology), M. Sacks (Criminology), J. Schiemann (Government and Law), A. Shlosberg (Criminology)

### School of Pharmacy and Health Sciences

M. Avaltroni, Dean; A. Carbone, H. Cho, A. Dushenkov, S. Falbaum, A. Gallipani, Y. Guo, J. Han, O. Iwuchukwu, P. Jungsuwadee, N. Kallhoff, J. Kalabalik, D. Kim, C. Lam, M. Leibfried, A.E. Ozdener, J. Palummo, K. Patel, S. Patel, A. Pennoyer, R. Quinn, A. Rivkin, L. Rozaklis, N. Ryba, M. Slugocki, J. Sullivan, G. Vaidean, S. Vansal, L. Westrich, A. Zelinski

# Silberman College of Business

## Majors

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### Accounting (B.S.)

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### Business Administration (B.S.)

*Concentrations: information systems (Metropolitan Campus only); international business (Metropolitan, Florham and Vancouver campuses); sustainability management (Metropolitan and Florham campuses only)*

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### Entrepreneurship (B.S.)\*

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### Finance (B.S.)

*Concentration: financial planning and wealth management*

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### Management (B.S.)

*Concentration: human resource management or leadership (choose one)*

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### Marketing (B.S.)

*Concentration: digital marketing (optional)*

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### Minors for Silberman College of Business Students

*Accounting, digital marketing, entrepreneurship, finance, financial planning and wealth management, human resource management, leadership, marketing, sustainability management*

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### Minors for Non-Silberman College of Business Students

*Business administration, digital marketing, entrepreneurship, financial planning and wealth management, management — human resources, management — leadership, sustainability management*

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Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

## Andrew J. Rosman, Dean

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the world's preeminent accreditation authority for collegiate schools of business. It is also a member of the Middle Atlantic Association of Colleges of Business Administration and the New Jersey Collegiate Business Administration Association.

The College offers a B.S. degree and enables students to specialize in accounting, business administration, entrepreneurship, finance, management and marketing. Students can also earn concentrations in specific areas including international business, information systems, human resource management, leadership, sustainability management, financial planning and wealth management and digital marketing.

The College's mission is to be a center of learning committed to the education of tomorrow's leaders today, to prepare students to succeed in a global environment and to advance the understanding of business. It also prepares students to assume positions of responsibility in a global business community characterized by rapid technological and social change.

Undergraduate programs reflect a strong commitment to the liberal arts as a foundation for the study of business in a multicultural society. Graduate programs build on the diverse educational backgrounds and work experiences of the students by providing professional management education that emphasizes the link between the theory and the practice of business.

The College aims to achieve global recognition as a leading provider of high-quality, innovative education in business administration and as a leader in the enhancement of the practice of business management through the applied research and professional activities of the faculty.

The College fulfills its mission through:

- A wide range of innovative, high-quality teaching methodologies appropriate to each discipline and constituency;
- A curriculum that responds to the needs, interests and insights of its students;
- The effective integration of recent research findings in classroom discussions through the creative application of theory to practice;
- Faculty members who are committed to making an appropriate contribution to the advancement of knowledge in their respective disciplines;
- The effective use of faculty skills in service to Fairleigh Dickinson University and the community;
- An innovative Professional Development Program (PDP) that enhances the readiness of Silberman College undergraduate students to succeed as business professionals upon graduation. The PDP fosters the development of a set of skills, knowledge and capabilities that complement the academic and technical foundation provided by the curriculum. The program helps build confidence and maturity in students as they transition to professional roles.

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\*Offered at the Florham Campus only.

# Academic Regulations

Silberman College of Business

Florham Campus, Metropolitan Campus and Vancouver Campus

- A dedicated Office of Placement and Outreach focused on developing internship opportunities for Silberman College students.

- The College of Business also offers the Global Business Experience (GBE) Program.

The Silberman College of Business' Rothman Institute of Innovation and Entrepreneurship helps build relationships with the external business community, as well as provide students with cocurricular opportunities to enhance their classroom experience. The institute's mission is to teach and support entrepreneurship and innovation in the academic, business and nonprofit communities.

The College also offers students and faculty opportunities for professional and personal growth both inside and outside the classroom. It maintains close relationships with the business community in the region. Guests from leading organizations are frequent speakers at student forums and at other events hosted by the College and its institute. Internship programs are available to provide work experience for undergraduate students in their chosen fields of study while providing organizational decision-makers the opportunity to observe contemporary students in a professional environment.

Students earning an undergraduate degree in business from Silberman College have the opportunity to earn a major in the following disciplines: accounting, business administration, entrepreneurship, finance, management and marketing. Students earning a major must complete a sequence of seven courses prescribed by the department responsible for the major. Students pursuing a specialization in accounting also have the opportunity to pursue a 150-hour combined B.S./M.S. degrees (4+1). Graduates from this program meet the New Jersey academic requirements for the Certified Public Accountant examination. Students preparing to qualify for examination in other states should choose electives to meet the specific requirements of the state in which they plan to be examined. Please contact the chair of the accounting, taxation and law department for further information.

Students in the Silberman College of Business can also earn both an undergraduate and graduate degree in one less year than it would traditionally take, by pursuing one of the five-year combined degree programs. The most common graduate

degrees are the M.B.A. — Master of Business Administration — and the Master of Science in accounting (4+1). For additional information, contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135. Admission requirements for the graduate portion of the program apply.

## Academic Regulations

In addition to the academic regulations found elsewhere in this bulletin, the following regulations apply to the Silberman College of Business:

### Admission

Academic proficiencies not achieved in high school or demonstrated by a validating examination prior to admission must be satisfied before matriculation. In some cases, extra course work may be required.

### Transfer Students

A. Credit for courses completed at another educational institution is based upon their equivalence to courses offered at Fairleigh Dickinson University. In addition, no transfer of credit will be accepted for required business courses, until the student has completed, either at another institution or at Fairleigh Dickinson University, all pertinent course prerequisites. Comparable 2000- or above-level business courses completed at another institution before completion of the equivalent of two full years of academic study may not be transferred without validation. Silberman College of Business' Undergraduate Services Office should be consulted regarding validation procedures.

B. All courses in a two-year A.A. degree program may not be transferable. The courses must fit the business program and be compatible in content and sequencing.

C. A maximum of 64 credits may be transferred from a two-year college. In addition, these courses must be compatible in content and sequencing with the Fairleigh Dickinson University program.

D. A maximum of 26 credits may be awarded for nontraditional education by the validation techniques listed below:

- General CLEP (College-Level Examination Program) examinations
- Subject CLEP examinations
- Advanced placement examinations (English, mathematics, history)
- USAFI courses if taken through an accredited college and validated by Fairleigh Dickinson University

- TECEP examinations (Thomas A. Edison College)

E. Business courses must be taken at an appropriate institution in order to be eligible for transfer.

F. Transfer credit for nontraditional courses, previously validated by another institution, must be validated by the Silberman College of Business before award of credit can be considered under (D) above.

G. Transfer students must complete the final 32 credits of baccalaureate study within the College.

H. A majority of required business core courses and a majority of the major courses in the discipline must be completed within the Silberman College of Business.

### Pass/No Credit

The pass/no credit (P/NC) privilege is only available to students with a cumulative grade point ratio (CGPR) of 3.00 or better who have achieved fifth-semester standing. A maximum of 6 credits may be earned at the rate of 3 credits per semester through this option. Credit is limited to elective courses not taken in the Silberman College of Business. Departmental approval is required during the first two weeks of the semester.

### Graduation Requirements

A student must complete a minimum of 33 credits as a matriculant in the Silberman College of Business. The cumulative grade point ratio for all work completed at the University must be at least 2.00. In addition, a grade of "C" or higher is required in all core and major (or minor) courses in a discipline to graduate with a major or minor in that discipline.

### Acceptance to Major (or Minor)

For acceptance into a given major (or minor), a minimum grade of "C" must have been earned in the business core course(s) pertaining to the same discipline as the major (or minor), as designated by each department. If a student wishes to declare a major (or minor) but has less than a "C" in a course in the business core course with discipline, then the student must retake the course to earn a grade of "C" or higher. If the student's department chair or faculty adviser agrees, a student may retake the course while concurrently taking additional courses leading to the major (or minor).

### Dual Major

A second undergraduate degree from the Silberman College of Business is not



# Academic Regulations

Silberman College of Business  
 Florham Campus, Metropolitan Campus and Vancouver Campus

permitted. However, a student may obtain a second major by completing appropriate courses between 9 and 21 credits beyond the 121 credits required for the Bachelor of Science degree. The courses must include all required courses within the second major plus adviser-approved electives.

## Minors

Students at the Silberman College of Business have the option of earning a minor in a non-business area by completing the requirements set forth by University College: Arts • Sciences • Professional Studies (for students at the Metropolitan Campus) or Maxwell Becton College of Arts and Sciences (for students at the Florham Campus) or in a business discipline, as set forth by the respective departments. For more details, students must consult with their advisers.

### Minors for Silberman College of Business Students

#### Accounting Minor

The minor in accounting requires earning 12 credits by completing the four required major accounting courses. If any accounting major courses have been counted toward the student's major, they cannot be counted toward the minor in accounting.

#### Digital Marketing Minor

The minor in digital marketing requires earning 12 credits by completing the four required major marketing courses.

	Credits
MKTG3360	
Digital Marketing.....	3
MKTG3383	
Social Media Marketing.....	3
MKTG4272	
Consumer Behavior.....	3
MKTG4499	
Internship in Marketing Studies* (Digital Focused).....	3

#### Entrepreneurship Minor

The minor in entrepreneurship requires earning 12 credits by completing four required major entrepreneurship courses. Any entrepreneurship major courses that have been counted toward the student's major cannot be counted toward the minor in entrepreneurship.

#### Finance Minor

The minor in finance requires earning 12 credits by completing the four required major finance courses. Any finance major courses that have been counted toward the student's major cannot be counted toward the minor in finance.

#### Financial Planning and Wealth Management Minor

	Credits
WMA3335	
Personal Financial Management	
or	
FIN3330	
Personal Financial Management.....	3
WMA4265	
Personal Tax Planning.....	3
WMA4350	
Investment Planning.....	3
WMA4380	
Client Relations in Financial Management.....	3

Take one of the following three:

WMA4267	
Retirement Planning.....	3
WMA4370	
Personal Estate and Gift Planning.....	3
WMA4375	
Risk Management and Insurance.....	3

#### Human Resource Management Minor

The minor in human resource management requires earning 12 credits distributed as follows:

#### Required Course

MGMT3700	
Human Resources Management.....	3

#### Elective Courses

Choose three of the following 3-credit courses:	
MGMT3610	
Leading Teams.....	3
MGMT3710	
Strategic Staffing.....	3
MGMT3720	
Training, Development and Performance Management.....	3
MGMT4499	
Internship in Human Resources Management.....	3
MGMT4730	
Strategic Human Resource Management.....	3
Any management major courses that have been counted toward the student's major cannot be counted toward the	

minor in human resource management.

#### Leadership Minor

The minor in leadership requires earning 12 credits distributed as follows:

#### Required Course

	Credits
MGMT3610	
Leading Teams.....	3

#### Elective Courses

Choose three of the following 3-credit courses:	
MGMT3400	
Managing Sustainability in the Global Context.....	3
MGMT3620	
Leadership and Personal Development.....	3
MGMT3700	
Human Resources Management.....	3
MGMT4498	
Internship in Management.....	3
MGMT4640	
Managing Projects and Organizations....	3
Any management major courses that have been counted toward the student's major cannot be counted toward the minor in leadership.	

#### Marketing Minor

The minor in marketing requires earning 12 credits by completing the four required major marketing courses. Any marketing major courses that have been counted toward the student's major cannot be counted toward the minor in marketing.

#### Sustainability Management Minor

DSCI3502	
Value Chain Management for Sustainability.....	3
ENTR3700	
Doing Well Through Doing Good or	
MGMT4490	
Guided Internship in Sustainability Management.....	3
MGMT3400	
Managing Sustainability in the Global Context.....	3
MKTG3501	
Marketing for a Sustainable World.....	3
Additionally, students must select one of the following sustainability-related science courses.	
BIOL1070, BIOL1071	
Ecosystem and Environmental Science.....	4

\*Students desiring this minor must meet the College's criteria for internships.

# Academic Regulations

Silberman College of Business  
 Florham Campus, Metropolitan Campus and Vancouver Campus

Credits		Credits		Credits
	BIOL1180		MKTG4499	
	Climate Change Biology.....3		Internship in Marketing Studies* (Digital Focused).....3	
	BIOL2049, BIOL2050			
	Ecology.....4		<b>Entrepreneurship Minor</b>	
	CHEM1027, CHEM1028		Completion of all of the following courses (three required and two electives) with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in entrepreneurship:	
	Chemistry for the Global Citizen.....4			
	PHYS1010, PHYS1020		<b>Required Course</b>	
	Physics of Sustainable Energy.....4		ENTR2700	
			Introduction to Entrepreneurship and Innovation.....3	
			ENTR3700	
			Doing Well Through Doing Good.....3	
			FIN3330	
			Personal Financial Management or	
			ENTR3300	
			E-business for Entrepreneurs.....3	
			Select two electives from the following courses	
			ENTR3202	
			Family Business Management.....3	
			ENTR3601	
			Women as Entrepreneurs.....3	
			ENTR4498, ENTR4499	
			Internship in Entrepreneurial Studies.....3	
			<b>Financial Planning and Wealth Management Minor</b>	
			Completion of all of the following courses with passing grades and attaining a mini- mum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in financial planning and wealth management:	
			WMA3335	
			Personal Financial Management or	
			FIN3330	
			Personal Financial Management.....3	
			WMA4265	
			Personal Tax Planning.....3	
			WMA4350	
			Investment Planning.....3	
			WMA4380	
			Client Relations in Financial Management.....3	
			<i>Take one of the following three:</i>	
			WMA4267	
			Retirement Planning.....3	
			WMA4370	
			Personal Estate and Gift Planning.....3	
			WMA4375	
			Risk Management and Insurance.....3	
			<b>Management — Human Resources Minor</b>	
			Completion of all of the following courses with passing grades and attaining a mini- mum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in manage- ment – human resources:	
			MGMT2600	
			Organizational Behavior.....3	
			MGMT3700	
			Human Resources Management.....3	
			MGMT3710	
			Strategic Staffing.....3	
			MGMT3720	
			Training, Development and Performance Management.....3	
			MGMT4730	
			Strategic Human Resource Management.....3	
			<b>Management — Leadership Minor</b>	
			Completion of all of the following courses with passing grades and attaining a mini- mum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in manage- ment – leadership:	
			MGMT2600	
			Organizational Behavior.....3	
			MGMT3100	
			Managerial Ethics.....3	
			MGMT3610	
			Leading Teams.....3	
			MGMT3620	
			Leadership and Personal Development...3	
			MGMT4640	
			Managing Projects and Organizations...3	
			<b>Sustainability Management Minor</b>	
			Completion of all of the following courses with passing grades and attaining a mini- mum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in sustainabili- ty management:	
			DSCI3502	
			Value Chain Management for Sustainability.....3	

\*Students desiring this minor must meet the College's criteria for internships.

# General Curriculum • Five-year Combined Degree Programs

Silberman College of Business  
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Credits		Credits		Credits	
ENTR3700	Doing Well Through Doing Good or	DSCI1254	Mathematics for Business Decisions or	LAW2276	Business and the Law.....3
MGMT4490	Guided Internship in Sustainability Management..... 3	DSCI1239	Calculus with Business Applications..... 3	MGMT2600	Organizational Behavior..... 3
MGMT3400	Managing Sustainability in the Global Context..... 3	DSCI2029	Introduction to Statistics..... 3	MGMT4160	Strategic Management..... 3
MKTG3501	Marketing for a Sustainable World..... 3 Additionally, students must select one of the following sustainability-related sci- ence courses.	English Courses..... 6		MIS2001	Management Information Systems..... 3
BIOL1070, BIOL1071	Ecosystem and Environmental Science..... 4	<i>Social and Behavioral Science Courses (9 credits)</i>		MKTG2120	Principles of Marketing..... 3
BIOL1180	Climate Change Biology..... 3	Students select from POLS, PSYC and SOCI courses and		<b>E. Restricted Business Core (3 credits)</b>	
BIOL2049, BIOL2050	Ecology..... 4	ORGS1100	Ethical Issues in Social Institutions* ..... 3	Finance and accounting majors must take:	
CHEM1027, CHEM1028	Chemistry for the Global Citizen..... 4	<i>Humanities/Language Courses (6 credits)</i>		FIN3310	Intermediate Financial Analysis..... 3
PHYS1010, PHYS1020	Physics of Sustainable Energy..... 4	Students must choose between language or humanities.		All other majors must take:	
		<i>Laboratory Science (6 credits)</i>		ENTR3160	Launching New Ventures..... 3
		MIS1045	Information Technology for Business**..... 3	<b>F. Major Courses in Discipline (21 credits)</b>	
		BIOL/CHEM Lab Science Course..... 3		See major courses for each discipline (major).	
		<b>B. University Core (8 credits)</b>		For prerequisites see Course Descrip- tions pages 370–378.	
		UNIV1001	Transitioning to University Life..... 1	<b>Sample Credit-Hour Distribution Per Semester</b>	
		UNIV1002	Preparing for Professional Life..... 1	<i>Freshman Year</i>	
		UNIV2001	Cross-cultural Perspectives..... 3	Semester 1: 16 credits	
		UNIV2002	Global Issues..... 3	Semester 2: 16 credits	
		<b>C. Free Electives (15 credits)</b>		<i>Sophomore Year</i>	
		Free Electives***..... 15		Semester 3: 15 credits	
		<b>D. Business Core (38 credits)</b>		Semester 4: 15 credits	
		ACCT2021	Introductory Financial Accounting..... 3	<i>Junior Year</i>	
		ACCT2022	Introductory Managerial Accounting..... 3	Semester 5: 15 credits	
		CARR3000	Career Strategies..... 2	Semester 6: 15 credits	
		DSCI2130	Business Statistics..... 3	<i>Senior Year</i>	
		DSCI3152	Operations Management..... 3	Semester 7: 15 credits	
		ECON2001	Introduction to Microeconomics..... 3	Semester 8: 15 credits	
		ECON2102	Introduction to Macroeconomics..... 3	<b>Five-year Combined Degree Programs (4+1)</b>	
		FIN3250	Principles of Financial Analysis..... 3	Students in the Silberman College of Business can earn both an undergraduate and graduate degree in just five years (4+1), by pursuing one of the following five-year combined degree programs:	
		*See adviser for selection of courses.		• B.S. in accounting/M.B.A.	
		**Students have the option to take a proficiency exam in Excel but the 6 credits in laboratory science still have to be taken.		• B.S. in accounting/M.S. in accounting	
		***Can be used toward a minor or a second major.		• B.S. in business administration/M.B.A.	
				• B.S. in business administration/M.S. in accounting	
				• B.S. in entrepreneurship/M.B.A.	

## General Curriculum Requirements

The Silberman College of Business offers a bachelor of science degree. Within this degree are six majors: accounting, business administration, entrepreneurship, finance, management and marketing.

A candidate for the Bachelor of Science degree at the Silberman College of Business must complete a minimum of 121 credits of course work, distributed as follows:

A. General Education Requirements.....	36
B. University Core.....	8
C. Free Electives.....	15
D. Business Core.....	38
E. Restricted Business Core.....	3
F. Business Major Courses.....	21
Total.....	121

Specifically, the following must be completed to satisfy each of the above requirements:

### A. General Education Requirements (36 credits)

Required (15 credits)

COMM2099

Professional Communications  
or

COMM2101

Professional Communication..... 3

# Accounting

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- B.S. in entrepreneurship/M.S. in accounting
- B.S. in finance/M.B.A.
- B.S. in finance/M.S. in accounting
- B.S. in management\*/M.B.A.
- B.S. in management\*/M.S. in accounting
- B.S. in marketing/M.B.A.
- B.S. in marketing/M.S. in accounting

These combined degree programs enable motivated students to earn their bachelor's and master's degrees in one year less than it would traditionally take. The most common graduate degrees offered in these combined programs are the M.B.A. — Master of Business Administration — and the Master of Science in accounting.

For additional information, call undergraduate programs and student services, Silberman College of Business, at 201-692-2135, or go to the respective majors in pages 108–114.

Admission requirements to the graduate portion of the program apply.

## Accounting Major (B.S.)

**Department of Accounting,  
Taxation and Law**

Credits 21

The accounting program is designed to prepare students for careers as professional accountants with public accounting firms, private industry or government. The combined B.S./M.S. in accounting program meets the academic requirements for the New Jersey Certified Public Accountant (CPA) examination. The program will expose students to a broad range of studies to help them develop both personally and professionally. Students will gain outstanding technical knowledge, solid reasoning and communication skills and an appreciation of other cultures and economies.

Prerequisites for major courses are found at the end of course descriptions in the Course Descriptions section of this bulletin.

### Requirements for the Bachelor of Science Degree

#### Accounting Major Courses

Students pursuing an accounting major must complete seven accounting major courses (21 credits) as follows:

<b>Required Courses</b>	<b>Credits</b>
ACCT3241	
Intermediate Financial Accounting I.....	3
ACCT3242	
Intermediate Financial Accounting II....	3
ACCT3243	
Cost Accounting: Measurement and Control.....	3
ACCT3390	
Accounting Information Systems.....	3
ACCT4261	
Advanced Accounting.....	3
ACCT4263	
Auditing Concepts.....	3
ACCT4267	
Fundamentals of Federal Taxation.....	3

Other accounting electives are permissible business electives with approval of accounting, taxation and law department chair.

### Accounting Minor

The minor in accounting requires earning 12 credits by completing the four required major accounting courses. The minor in accounting is only available for students in the Silberman College of Business. If any accounting major courses have been counted toward the student's major, they cannot be counted toward the minor in accounting.

### Combined B.S./M.S. in Accounting Program Five-year Programs (4+1)

In addition to the undergraduate program in accounting, Fairleigh Dickinson University offers a comprehensive 150-hour program leading to the combined Bachelor of Science (B.S.) in accounting/Master of Science (M.S.) in accounting degree. For further information see "Combined Degree Programs," page 227.

### Combined B.S. in Accounting/M.B.A. Five-year Program (4+1)

Fairleigh Dickinson University also offers the following five-year combined degree program: B.S. in accounting/M.B.A.. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135, or see page 228.

Admission requirements to the graduate portion of the program apply.

\*Leadership or human resource management concentrations.

# Business Administration

Silberman College of Business  
Florham Campus, Metropolitan Campus and Vancouver Campus

## Business Administration Major (B.S.)

Department of Management and Entrepreneurship

Credits 21

The business administration major enables students to opt for a program of study that can effectively channel their diverse preferences, offering the flexibility to select from a variety of advanced business courses that more closely match their interests and aspirations.

The business administration major is designed to offer students the opportunity to obtain a deeper yet still broad understanding of business administration by pursuing advanced studies in a range of selected disciplines.

Students may choose to complete the business administration major **without a concentration** or they may choose to complete the business administration major with a concentration in either **information systems, international business** or **sustainability management**.

### Requirements for the Bachelor of Science Degree

In addition to the General Curriculum Requirements listed on page 107, a student majoring in business administration may choose from four tracks: 1) **major in business administration without a concentration**, 2) **major in business administration with an information systems concentration**, 3) a **major in business administration with a concentration in international business** and 4) **major in business administration with a sustainability management concentration**. (see below and next page).

### Without Concentration

Students pursuing a business administration major (without a concentration) must complete 21 credits of business major courses as follows:

<b>Required Courses</b>	Credits
MIS4307	
Introduction to E-business	
or	
MIS4303	
Spreadsheet Applications in Business....	3

### Major Elective Courses

Select 18 credits among the business major courses offered by the other Silberman College of Business majors (provided that course prerequisites have been met). No more than 9 of these credits can be taken in any given discipline.

### With Information Systems Concentration

The information systems concentration prepares students to be effective users and managers of information technologies/systems in business firms. It provides students with practical knowledge and skills in the integration of management and technology in the various business disciplines.

Prerequisites for business major courses are found at the end of course descriptions in the Course Descriptions section of this bulletin.

<b>Required Courses</b>	Credits
Required courses are only offered on the Metropolitan Campus.	
MIS4301	
Data Communications and Networks.....	3
MIS4303	
Spreadsheet Applications in Business....	3
MIS4304	
Database Applications in Business.....	3
MIS4305	
Systems Analysis, Design and Implementation.....	3

### Major Elective Courses

3 elective courses selected from any permissible major courses offered in the other Silberman College of Business majors or any permissible management information systems course..... 9

### With International Business Concentration

The international business concentration prepares students to understand and effectively participate in the management of business firms operating in a multinational environment. Courses examine in-depth theories and applied concepts relevant to conducting business in a competitive global arena.

<b>Required Courses</b>	Credits
ECON4208	
International Trade.....	3
IBUS3201	
Fundamentals of International Business.....	3
MGMT3371	
International Management.....	3
MKTG3371	
Principles of International Marketing....	3
MIS4307	
Introduction to E-business	
or	
MIS4303	
Spreadsheet Applications in Business....	3

### Major Elective Courses

2 elective courses selected from any permissible major courses offered in the other Silberman College of Business majors.....6

### With Sustainability Management Concentration

The program fosters understanding about what determines the sustainability of human institutions, organizations, cultures and technologies in different environments. It is comprised of sustainability-oriented business courses from the management, economics, finance, marketing, decision sciences and entrepreneurship disciplines.

<b>Required Courses</b>	Credits
DSCI3502	
Value Chain Management for Sustainability.....	3
ENTR4500	
Sustainability Management Capstone: Social Venturing	
or	
ENTR4501	
Guided Entrepreneurship in Social Venturing.....	3
FIN3503	
Finance, Value and Sustainability.....	3
MGMT3400	
Managing Sustainability in the Global Context.....	3
MGMT3504	
Becoming an Effective Sustainability Change Agent.....	3
MKTG3501	
Marketing for a Sustainable World.....	3
SUST3500	
Environmental Economics.....	3

# Entrepreneurship

Silberman College of Business  
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Additionally, students must select one of the following sustainability-related science courses.

	Credits
BIOL1070, BIOL1071 Ecosystem and Environmental Science.....	4
BIOL1180 Climate Change Biology.....	3
BIOL2049, BIOL2050 Ecology.....	4
CHEM1027, CHEM1028 Chemistry for the Global Citizen.....	4
PHYS1010, PHYS1020 Physics of Sustainable Energy.....	4

## Transfer Credits/Advanced Standing Opportunities

Previously earned college credits may qualify upon review for transfer to this program. Students also can lighten their credit requirements through alternatively earned credits by examination. Such credits can be gained through the College Level Examination Program (CLEP).

## Combined B.S. in Business Administration/M.B.A. in Finance, Management or Marketing or M.S. in Accounting Programs

### Five-year Programs (4+1)

Fairleigh Dickinson University also offers four five-year combined degree programs: B.S. in business administration/M.B.A. in finance, management or marketing and B.S. in business administration/M.S. in accounting. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

# Entrepreneurship Major (B.S.)

## Department of Management and Entrepreneurship

(Florham Campus only)

Credits 21

Entrepreneurs foster technological and social change, and their innovation and creativity forge our future. The courses in the major are wide-ranging and pragmatic, focusing on critical entrepreneurial issues in corporations, small and start-up businesses and not-for-profit organizations. Students develop an entrepreneurial perspective through an interdisciplinary approach employing concepts from marketing, finance and management to explore the creation, growth and key success factors of small business units and new enterprises.

Classroom study is augmented with hands-on experience through case studies and fieldwork in selected entrepreneurial businesses and other organizations.

Entrepreneurship majors also have access to the services of the college's nationally acclaimed Rothman Institute of Innovation and Entrepreneurship in achieving their career goals.

## Requirements for the Bachelor of Science Degree

### Entrepreneurship Major Courses

Students pursuing an entrepreneurship major must complete seven entrepreneurship major courses (21 credits) as follows:

<b>Required Courses</b>	Credits
ENTR2700 Introduction to Entrepreneurship and Innovation.....	3
ENTR3700 Doing Well Through Doing Good.....	3
ENTR4100 Managing Growing Ventures.....	3
FIN3330 Personal Financial Management or	
ENTR3300 E-business for Entrepreneurs.....	3
MKTG3344 Marketing Research*.....	3

### Electives

Choose two of the following 3-credit courses:

\*Distance-learning course

	Credits
ENTR3202 Family Business Management*.....	3
ENTR3601 Women as Entrepreneurs**.....	3
ENTR4498 Internship in Entrepreneurial Studies or	
ENTR4499 Internship in Entrepreneurial Studies.....	3

## Entrepreneurship Minor

Completion of all of the following courses (three required and two electives) with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in entrepreneurship:

### Required Courses

ENTR2700 Introduction to Entrepreneurship and Innovation.....	3
ENTR3700 Doing Well Through Doing Good.....	3
FIN3330 Personal Financial Management or	
ENTR3300 E-business for Entrepreneurs.....	3

Select two from the following courses

ENTR3202 Family Business Management*.....	3
ENTR3601 Women as Entrepreneurs**.....	3
ENTR4498 Internship in Entrepreneurial Studies or	
ENTR4499 Internship in Entrepreneurial Studies.....	3

## Combined B.S. in Entrepreneurship/M.B.A. or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers several combined degree programs: B.S. in entrepreneurship/M.B.A., B.S. in entrepreneurship/M.S. in accounting, B.S. in entrepreneurship/M.S. in supply chain management and B.S. in entrepreneurship/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

\*Blended course, distance learning and classroom.

\*\*Distance-learning course

## Finance Major (B.S.)

*Department of Economics,  
Finance and International Business*

Credits 21

The finance major prepares students for careers in banking, investment and other financial endeavors.

Prerequisites for finance courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

### Requirements for the Bachelor of Science Degree

#### Required Courses Credits

FIN3371	
International Business Finance.....	3
FIN4341	
Financial Markets and Institutions.....	3
FIN4343	
Securities and Investments.....	3
FIN4405	
Analytical Methods in Finance.....	3

#### Major Elective Courses

Choose three of the following 3-credit courses:

FIN3330	
Personal Financial Management.....	3
FIN3421	
Sports Finance.....	3
FIN4150	
Working Capital Management.....	3
FIN4221	
Capital Budgeting.....	3
FIN4350	
Derivatives.....	3
FIN4351	
Portfolio Management.....	3
FIN4451	
Internship in Finance.....	3

### Financial Planning and Wealth Management Concentration

FIN3371	
International Business Finance.....	3
FIN4341	
Financial Markets and Institutions.....	3
FIN4343	
Securities and Investments.....	3
FIN4405	
Analytical Methods in Finance.....	3
WMA3335	
Personal Financial Management.....	3
WMA4265	
Personal Tax Planning.....	3

Credits

WMA4267	
Retirement Planning.....	3
WMA4370	
Personal Estate and Gift Planning.....	3
WMA4375	
Risk Management and Insurance.....	3
WMA4380	
Client Relations in Financial Management.....	3
WMA4390	
Financial Planning Capstone.....	3

For questions about this concentration contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135.

### Finance Minor

The minor in finance requires earning 12 credits by completing the four required major finance courses. The minor in finance is only available for students in the Silberman College of Business. Any finance major courses that have been counted toward the student's major cannot be counted toward the minor in finance.

### Financial Planning and Wealth Management Minor

WMA3335	
Personal Financial Management	
or	
FIN3330	
Personal Financial Management.....	3
WMA4265	
Personal Tax Planning.....	3
WMA4350	
Investment Planning.....	3
WMA4380	
Client Relations in Financial Management.....	3

Take one of the following Enrichment Courses:

WMA4267	
Retirement Planning.....	3
WMA4370	
Personal Estate and Gift Planning.....	3
WMA4375	
Risk Management and Insurance.....	3

### Combined B.S. in Finance/ M.B.A. in Accounting, Finance or Marketing or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers the following combined degree programs: B.S. in finance/M.B.A. in accounting, finance or marketing; B.S. in finance/M.S. in accounting; B.S. in finance/M.S. in supply chain management; and B.S. in finance/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

# Management

Silberman College of Business  
 Florham Campus, Metropolitan Campus and Vancouver Campus

## Management Major (B.S.)

### Department of Management and Entrepreneurship

Credits 21

The major in management is designed for students who wish to develop the interpersonal and management skills they can use starting with their first professional job, as well as developing a long-term perspective and value system which will serve them their entire careers. Specifically, students develop the competencies to manage teams, processes, workgroups, departments and functional units to eventually move into positions of leadership in their companies. Students learn about management by *doing* management.

Management majors graduate with hands-on experience working on two real-life management projects with area charitable organizations as well as other exciting learning experiences such as field trips to area businesses and a semester-long correspondence with a professional mentor.

Prerequisites for business or management major courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

### Requirements for the Bachelor of Science Degree

In addition to the General Curriculum Requirements listed on page 107, students pursuing a B.S. in management will be required to choose a concentration in either **human resource management** or **leadership**. To attain a B.S. in management, students must take four required management courses in addition to three courses from either concentration.

#### Required Courses

	Credits
MGMT3100	
Managerial Ethics.....	3
MGMT3371	
International Management.....	3
MGMT3610	
Leading Teams.....	3
MGMT3700	
Human Resources Management.....	3

#### With Human Resource Management Concentration

Silberman College of Business human resource management students are

equipped with a wide knowledge of various human resource management functions including recruitment, selection, training, performance evaluation, compensation and legal concerns.

Through discussion, hands-on learning and exposure to HR professionals, students learn how to manage various HR functions and develop an understanding of how human resources plays a vital role in the sustainable strategic management of companies.

The career- and skills-related focus of this concentration helps students develop the skills needed for successful careers in human resource management.

#### Major Elective Courses

Choose three of the following:

	Credits
MGMT3710	
Strategic Staffing.....	3
MGMT3720	
Training, Development and Performance Management.....	3
MGMT4499	
Internship in Human Resources Management*.....	3
MGMT4730	
Strategic Human Resource Management**.....	3

#### With Leadership Concentration

Silberman College of Business' B.S. in management with a leadership concentration prepares students to effectively and ethically exercise leadership.

Students will be exposed to a variety of leadership perspectives and models. Self-assessments and guided exercises will provide students with insight into their leadership styles. As part of their major, students will engage in hands-on experiences of leadership and change management. They will develop the knowledge and capability to lead with attention to the "triple bottom line" of environmental stewardship, social equity and financial success.

#### Major Elective Courses

Choose three of the following:

MGMT3400	
Managing Sustainability in the Global Context.....	3

\*This can replace either MGMT3710 Strategic Staffing or MGMT3720 Training, Development and Performance Management.

\*\*Required.

	Credits
MGMT3620	
Leadership and Personal Development.....	3
MGMT4498	
Internship in Management*.....	3
MGMT4640	
Managing Projects and Organizations**.....	3

### Human Resource Management Minor

The minor in human resource management requires earning 12 credits distributed as follows:

#### Required Course

MGMT3700	
Human Resources Management.....	3

#### Elective Courses

Choose three of the following 3-credit courses:

MGMT3610	
Leading Teams.....	3
MGMT3710	
Strategic Staffing.....	3
MGMT3720	
Training, Development and Performance Management.....	3
MGMT4499	
Internship in Human Resources Management.....	3
MGMT4730	
Strategic Human Resource Management.....	3

The minor in human resource management is only available to students in the Silberman College of Business. Any management major courses that have been counted toward the student's major cannot be counted toward the minor in human resource management.

#### Leadership Minor

The minor in leadership requires earning 12 credits distributed as follows:

#### Required Course

MGMT3610	
Leading Teams.....	3

\*This can replace either MGMT3620 Leadership and Personal Development or MGMT3400 Managing Sustainability in the Global Context.

\*\*Required.



## Elective Courses

Choose three of the following 3-credit courses:

	Credits
MGMT3400	
Managing Sustainability in the Global Context.....	3
MGMT3620	
Leadership and Personal Development.....	3
MGMT3700	
Human Resources Management.....	3
MGMT4498	
Internship in Management.....	3
MGMT4640	
Managing Projects and Organizations....	3
The minor in leadership is only available to students in the Silberman College of Business. Any management major courses that have been counted toward the student's major cannot be counted toward the minor in leadership.	

## Sustainability Management Minor

DSCI3502	
Value Chain Management for Sustainability.....	3
ENTR3700	
Doing Well Through Doing Good or	
MGMT4490	
Guided Internship in Sustainability Management.....	3
MGMT3400	
Managing Sustainability in the Global Context.....	3
MKTG3501	
Marketing for a Sustainable World.....	3
Additionally, students must select one of the following sustainability-related science courses.	
BIOL1070, BIOL1071	
Ecosystem and Environmental Science.....	4
BIOL1180	
Climate Change Biology.....	3
BIOL2049, BIOL2050	
Ecology.....	4
CHEM1027, CHEM1028	
Chemistry for the Global Citizen.....	4
PHYS1010, PHYS1020	
Physics of Sustainable Energy.....	4

## Combined B.S. in Management/M.B.A. in Finance or Marketing or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers combined degree programs: B.S. in management/M.B.A. in finance or marketing, B.S. in management/M.S. in accounting, B.S. in management/M.S. in supply chain management and B.S. in management/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

## Marketing Major (B.S.)

*Department of Marketing,  
Information Systems and Decision  
Sciences*

Credits 21

The marketing curriculum is designed to prepare students for careers in sales, retailing, advertising, product management, direct marketing and research. This preparation is accomplished through course offerings in basic marketing concepts and supplemented by career-specific courses. The learning process is enhanced with projects, case studies and internships.

Marketing majors also are exposed to interdisciplinary courses that develop a broad range of business skills.

Prerequisites for marketing major courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

## Requirements for the Bachelor of Science Degree

### Marketing Major Courses

Students pursuing a marketing major must complete seven marketing major courses (21 credits) as follows:

<b>Required Courses</b>	Credits
MKTG3344	
Marketing Research*.....	3
MKTG4272	
Consumer Behavior.....	3
MKTG4405	
Advanced Marketing Management.....	3

### Major Elective Courses

Choose four from the following:

MKTG3360	
Digital Marketing.....	3
MKTG3371	
Principles of International Marketing....	3
MKTG3383	
Social Media Marketing*.....	3
MKTG3501	
Marketing for a Sustainable World.....	3
MKTG4365	
Marketing Communications.....	3
MKTG4499	
Internship in Marketing Studies.....	3

\*Distance-learning course

# Faculty & Staff

Silberman College of Business  
 Florham Campus, Metropolitan Campus and Vancouver Campus

## Digital Marketing Concentration

With so many advances in technology, today's marketing arena is more complex than ever before. Marketers are struggling to keep up with information being shared and used by their customers on a variety of platforms. Marketing success lies in being able to understand these digital and social platforms, and in being able to seamlessly integrate a range of new capabilities with some of the more traditional ones.

A bachelor's degree in marketing with a concentration in digital marketing will prepare students for a career in this dynamic field and will equip them with the knowledge and skills to plan, design and manage a well-integrated marketing strategy.

Students pursuing this option will be required to complete a total of 21 credits, which includes the following six required courses followed by an internship in the field of digital and/or social media marketing.

	Credits
MKTG3344	
Marketing Research* .....	3
MKTG3360	
Digital Marketing** .....	3
MKTG3383	
Social Media Marketing** .....	3
MKTG4272	
Consumer Behavior* .....	3
MKTG4365	
Marketing Communications* .....	3
MKTG4405	
Advanced Marketing Management* .....	3
MKTG4499	
Internship in Marketing Studies*** (related to digital and/or social media marketing) .....	3

## Digital Marketing Minor

The minor in digital marketing requires earning 12 credits by completing the four required major marketing courses. The minor in digital marketing is only available for students in the Silberman College of Business.

	Credits
MKTG3360	
Digital Marketing .....	3
MKTG3383	
Social Media Marketing .....	3
MKTG4272	
Consumer Behavior .....	3
MKTG4499	
Internship in Marketing Studies* (Digital Focused) .....	3

## Marketing Minor

The minor in marketing requires earning 12 credits by completing the four required major marketing courses. The minor in marketing is only available for students in the Silberman College of Business. Any marketing major courses that have been counted toward the student's major cannot be counted toward the minor in marketing.

## Combined B.S. in Marketing/ M.B.A. in Finance or Management or Marketing or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers the following combined degree programs: B.S. in marketing/M.B.A. in finance, management or marketing; B.S. in marketing/M.S. in accounting, B.S. in marketing/M.S. in supply chain management and B.S. in marketing/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

# Faculty & Staff

## Administration

A.J. Rosman, Dean  
 J. Almeida, Associate Dean of Graduate Programs  
 J.D. Wischnevsky, Associate Dean

## Department of Accounting, Taxation and Law

R. West, Chair; F. Brunetti, D. Buzinkai, M. Calderisi, D. Collier, Z. Fried, L. Mandel, S. McGregor, A. Rosman, H. Rozen, J. Rummell, J. Schiff, A. Schultzer, J. Skarbnik, Y. Yan

## Department of Economics, Finance and International Business

K. Denning, Chair; P. Anastasopoulos, K. Betz, J. Bulsiewicz, E. Cowan, P. Cozza, E. Djimopoulos, F. Englander, R. Kjetsaa, H. Li, M. Montasser, C. Ng, S. Tuluca, X. Yang, L. Wang, B. Zwick

## Department of Management and Entrepreneurship

G. Jones, Chair; J. Almeida, S. Bear, S. Behson, D. Celentano, G. Cleaves, K. Fairfield, G. Farias, T. Hansbrough, J. Harmon, E. Ko, I. Krysa, O. Nwachukwu, D. Scotti, G. Sollars, J.D. Wischnevsky

## Department of Marketing, Information Systems and Decision Sciences

Z. Wang, Chair; G. Bronson, R. Chandrashekar, Y. DeMotta, B. Ertimur, A. Fask, A. Huser, M. Kieff, Y. Kim, K. Masten, K.G. Mun, L. Qin, J. Reid, M. Sedaghat, X. Tan, O. Topaloglu, P. Yoon, W. Zhang

## Rothman Institute of Innovation and Entrepreneurship

D.G. Caldwell

\*Required for all marketing majors.

\*\*Required for the digital marketing concentration.

\*\*\*Students must meet the College's criteria for internships.

\*Students desiring this minor must meet the College's criteria for internships.

# Anthony J. Petrocelli College of Continuing Studies

## Majors

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### Hotel and Restaurant Management (B.S.)

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### Individualized Studies (B.A.)

*Concentrations: global gaming management, hospitality management, specialized studies*

*Certificates: business and applied technology, business and communications, contemporary cyber communication, global transportation studies, health and human services administration, hospitality management, leadership administration, public service administration, security and terrorism studies, stewardship and sustainability, transit safety and security*

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### Interdisciplinary Studies (B.A.)

*Concentrations: leadership in a global society, sustainability, technology and society (Metropolitan Campus only), women's leadership*

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### Liberal Arts (A.A.)

*Latino Promise<sup>®</sup>, MiraeRo Program (Korean Studies Program), Puerta al Futuro<sup>®</sup> (Gateway to the Future)<sup>®</sup>*

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### Sports Administration (B.A.)

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Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; Vancouver Campus, British Columbia, Canada; and Wroxton College, Oxfordshire, England

Lisa R. Braverman, Dean

## General Information

In April 1998, the University announced the formation of the New College of General and Continuing Studies to better address the special educational needs of nontraditional students, including adult learners. In recognition of support provided by an adult learner who earned his degree at Fairleigh Dickinson University, the college was renamed Anthony J. Petrocelli College of Continuing Studies in April 2005.

Recognizing that the student profile on most U.S. campuses is changing dramatically, the University's Petrocelli College provides an enhanced focus on the adult learner and positions FDU as a leader in providing learning opportunities in a strong academic foundation for students of all ages. The College also provides a point of entry and a supportive educational environment for those full-time students from nontraditional and underserved backgrounds.

Integral to its commitment to serve lifelong learners, Petrocelli College features precollege programs, two- and four-year undergraduate degree offerings, six graduate degree programs, postbaccalaureate education and nondegree programs, with many credit, noncredit and certification options. While based on the Metropolitan Campus, Teaneck, New Jersey, the College offers programs on both New Jersey campuses, Wroxton College in Oxfordshire, England, and the Vancouver Campus in British Columbia, Canada, as well as at more than 30 other off-campus sites. Courses are offered in formats, at times and in locations convenient for those students outside the mainstream of traditional undergraduate and graduate populations served by the University's other colleges. Many asynchronous online courses are also offered.

The College's many initiatives represent an entrepreneurial approach to meeting the needs of students of all ages and backgrounds. Petrocelli College includes:

- Associate in Arts degree for adult learners;
- programs for special admit, full-time students (this includes students in the Petrocelli College associate degree;
- the Bachelor of Arts in individualized studies;
- the Bachelor of Arts in interdisciplinary studies;
- the Bachelor of Science in hotel and restaurant management and other programs in hotel, restaurant and tourism management;
- postbaccalaureate certificate programs;
- continuing education programming;
- on-site credit and workforce-training programs targeted to corporate employees;
- summer high school precollege programs and dual-enrollment high school programs; and
- educational programs for retired citizens.

In conjunction with the other colleges, Petrocelli College also is involved with distance-learning initiatives, summer programming

# Special Programs • Hotel and Restaurant Management

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

and the support and development of credit certificate programs.

## Special Programs

### *Evening, Weekend and Distance-learning Studies for Adults*

Adults can further their education on a convenient evening, morning and weekend basis on the Metropolitan Campus, Teaneck, New Jersey, and through distance and blended learning.

For the person who is unable to spend three or four evenings a week in the classroom, courses are offered on Friday evenings and Saturdays. The evening-study program provides flexible scheduling options on a four-, six-, eight- and 12-week modular basis. Distance-learning and blended classes, with limited class attendance and mostly online study, are available during the fall, spring and summer semesters.

### *Retired Citizens*

Currently at the Florham Campus, senior citizens may enroll in credit courses on a space-available basis for a fee of \$265.00\* per course. Noncredit offerings are also available through the continuing education division of Petrocelli College.

### *CLEP Preparation*

The general tests of the College-Level Examination Program (CLEP) are designed for those individuals who have mastered freshman college-level material outside the traditional classroom setting. Credits received through CLEP are being accepted at a growing number of colleges across the nation.

Programs to prepare people for the CLEP examinations are offered by Petrocelli College in conjunction with the various adult high schools and industries in northern New Jersey.

### *Online Programs*

Distance education is among the fastest-growing of all educational formats at colleges nowadays. Distance-education courses are offered during the fall, spring and summer semesters at Petrocelli College, enabling its students to study from the convenience of their offices or homes at any time, 24 hours a day, seven days a week.

*\*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.*

Students do most or all of their study online, in an easy-to-use course management website, where all readings, lectures and assignments are posted and where they submit their work. Such study format provides students with the freedom they need when juggling busy lives, work responsibilities, family obligations, etc., with their degrees study.

The Office of Online Programs offers many online courses leading to the Bachelor of Arts in individualized studies in business, public administration and health and human services.

For information, contact (201) 692-7358.

### *Latino Promise® Program*

Petrocelli College has established the Latino Promise® Program. Designed for traditional-age students who are attending the Metropolitan Campus, Latino Promise® provides support through Petrocelli College academic degree programs, scholarships and financial aid; a seminar program offered by successful Latino leaders; a personalized academic advisement program; and the *Puerta al Futuro*® Language Laboratory.

For information, contact (201) 692-2676.

### *MiraeRo (Korean Studies Program)*

Designed for recent immigrants from South Korea, the MiraeRo Gateway Program is a Korean-to-English transition program with credit courses offered in Korean and English, leading to an associate's or bachelor's degree.

By attending the Korean Program, students can develop their English skills through a professional and structured program of study on the Metropolitan Campus in Teaneck, New Jersey. Students complete an assessment of written and verbal English skills at the conclusion of the associate's degree program and enroll in baccalaureate classes that are in English.

To learn more about the opportunities offered, contact (201) 692-7178 or visit <https://petrocelli.fdu.edu/complete>.

## Hotel and Restaurant Management Major (B.S.)

### *International School of Hospitality and Tourism Management*

This major, offered on the Metropolitan Campus, Teaneck, New Jersey; at the Florham Campus, Madison, New Jersey; at Wroxtton College in Oxfordshire, England; and at the Vancouver Campus in British Columbia, Canada, is designed to prepare students to assume managerial functions in service industries including organizations such as hotels, motels, restaurants, resorts, entertainment complexes and casinos. In addition to a broad liberal arts curriculum, business core and extensive course work in hotel and restaurant subjects, students enrolled in this school are expected to accumulate significant knowledge outside of the classroom. The Professional Development Series involves the students in such activities as visits to major food markets, tours of ethnic neighborhoods in the metropolitan area, wine seminars, lectures by hospitality industry leaders, visits to diverse hospitality operations, internships and the European Seminar.

Undergraduate students are expected to complete 1,200 hours of diverse work experience. To meet this requirement the student works in a sophisticated laboratory — the New York metropolitan area's hospitality industry.

A specialization in hospitality management through the Bachelor of Arts in individualized studies program is also offered on the Metropolitan Campus and at the Florham Campus. Courses are also offered in Toms River, N.J., in cooperation with Ocean County College; in Jersey City, N.J., in cooperation with the culinary arts program of Hudson County Community College; in Mays Landing, N.J., in cooperation with Atlantic Cape Community College; in West Windsor, N.J., in cooperation with Mercer County Community College; and in Parsippany, N.J., in cooperation with Wyndham Worldwide and at the Vancouver Campus, the University's campus in Vancouver, British Columbia, Canada.

# Hotel and Restaurant Management

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

## Requirements for the Bachelor of Science Degree

### Course Requirements (51 credits)

	Credits
HRTM1100	
Professional Development Sequence (PDS) Work Experience 1.....	1
HRTM1101	
Career Orientation and Professional Development.....	1
HRTM1102	
Professional Skill Development.....	1
HRTM2100	
Professional Development Sequence (PDS) Work Experience 2.....	1
HRTM2103	
Management Values and Professional Standards.....	2
HRTM2104	
The Hospitality Manager and Law.....	2
HRTM2210	
Sales and Marketing for Hospitality Managers.....	3
HRTM2211	
Accounting for Hospitality Managers....	3
HRTM2233	
Quantity Food Production.....	3
HRTM2235	
Sustainability and Ecotourism.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3100	
Professional Development Sequence (PDS) Work Experience 3.....	1
HRTM3105	
Managerial Challenges in the Workplace.....	1
HRTM3106	
The Manager and the Group: Work Experience.....	1
HRTM3108	
Nutrition, Sanitation and Food Safety.....	3
HRTM3203	
Food and Beverage Management.....	3
HRTM3207	
Lodging Operations and Revenue Management.....	3
HRTM3208	
Financial Management in the Hospitality Industry.....	3
HRTM3209	
Human Resource Management.....	3
HRTM4107	
Concepts in Transportation and Travel.....	2

	Credits
HRTM4108	
Global Issues in Hospitality Management (seminar abroad; includes lab experience).....	2
HRTM4109	
Hospitality Operations Tactics and Strategy.....	3
HRTM4204	
Property Management.....	3
HRTM4280	
Domestic and International Tourism.....	3
Electives.....	6
Total.....	54

In addition to these courses, a number of specific general education courses have been developed to further prepare the students as hospitality managers.

### Fees

The fee for HRTM4108 Global Issues in Hospitality Management (seminar abroad) is \$3,200.00,\* which includes airfare, hotels, some meals, seminars and scheduled visits to hospitality operations.

### Recommended Course Sequencing

#### 1st Semester

DSCI1128	
Introduction to Mathematical Methods	
or	
MATH1128	
Mathematical Methods.....	3
ENGW1101	
College Writing Workshop.....	3
HRTM1101	
Career Orientation and Professional Development.....	1
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
MIS1045	
Information Technology for Business	
or	
MIS1135	
Introduction to Computers.....	3
PSYC1201	
General Psychology.....	3
UNIV1001	
Transitioning to University Life.....	1
Foreign Language Requirement** .....	3
Total.....	17

\*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.

\*\*Must be a 6-credit sequence.

	Credits
2nd Semester	
ENGW1102	
Research Writing Workshop.....	3
GOVT1120	
Comparative Government.....	3
HRTM1100	
Professional Development Sequence (PDS) Work Experience 1.....	1
HRTM1102	
Professional Skill Development.....	1
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3108	
Nutrition, Sanitation and Food Safety.....	3
UNIV1002	
Preparing for Professional Life.....	1
Foreign Language Requirement*.....	3
Total.....	15

#### 3rd Semester

ACCT2021	
Introductory Financial Accounting.....	3
DSCI2029	
Introduction to Statistics	
or	
DSCI/MATH1142	
Introduction to Statistics.....	3
ECON1121	
Macroeconomics.....	3
HRTM2103	
Management Values and Professional Standards.....	2
HRTM2233	
Quantity Food Production.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	17

#### 4th Semester

HRTM2100	
Professional Development Sequence (PDS) Work Experience 2.....	1
HRTM2104	
The Hospitality Manager and Law.....	2
HRTM2211	
Accounting for Hospitality Managers....	3
HRTM2235	
Sustainability and Ecotourism.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0

\*Must be a 6-credit sequence.

# Individualized Studies

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

	Credits
SPCH1107	
Fundamentals of Speech.....	3
UNIV2002	
Global Issues.....	3
	Total.....15

## 5th Semester

COMM2099	
Professional Communications.....	3
HRTM2210	
Sales and Marketing for Hospitality Managers.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3105	
Managerial Challenges in the Workplace.....	1
HRTM3208	
Financial Management in the Hospitality Industry.....	3
HRTM3209	
Human Resource Management.....	3
Free Elective.....	3
	Total.....16

## 6th Semester

HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3100	
Professional Development Sequence (PDS) Work Experience 3.....	1
HRTM3106	
The Manager and the Group: Work Experience.....	1
HRTM3203	
Food and Beverage Management.....	3
HRTM3207	
Lodging Operations and Revenue Management.....	3
HRTM4280	
Domestic and International Tourism.....	3
MIS2001	
Management Information Systems.....	3
Hotel, Restaurant and Tourism Management Elective.....	3
	Total.....17

## 7th Semester

	Credits
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM4107	
Concepts in Transportation and Travel.....	2
HRTM4204	
Property Management.....	3
Hotel, Restaurant and Tourism Management Elective.....	3
Free Electives.....	6
	Total.....14

## 8th Semester

HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM4108	
Global Issues in Hospitality Management (seminar abroad).....	2
HRTM4109	
Hotel Operations Tactics and Strategy.....	3
Free Elective.....	3
Free Elective.....	1
Laboratory Science Elective.....	3
	Total.....12
	Total Credits.....120

## Combined Degree Program B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

The International School of Hospitality and Tourism Management offers a B.S. in hotel and restaurant management/M.S. in hospitality management studies program. For more information, see page 242.

# Individualized Studies Major (B.A.)

The Bachelor of Arts degree in individualized studies is a baccalaureate-degree program structured to meet the educational needs of adult learners. It provides nontraditional students with a variety of options in meeting University requirements for an undergraduate degree grounded in the liberal arts. It recognizes the value of life/work experience and affords students the opportunity to receive advanced standing through portfolio assessment. Students may choose to pursue a single area of study in depth or design a program of study by combining liberal arts courses with career-related concentrations. The result is a degree program that will be immediately appealing to mature adults who bring to FDU traditional course work completed over a period of years at a number of institutions, a history of work and life experiences that can be equated with credit-bearing courses, and the desire, commitment and self-discipline to complete the degree requirements.

Students completing the requirements for the Bachelor of Arts degree in individualized studies will be required to demonstrate proficiency in a number of subject areas and related skills. They include the following:

A. The use of basic intellectual tools, specifically to communicate effectively, both orally and in writing; to use mathematical reasoning; and to comprehend the nature, techniques and limits of the humanities, natural or physical sciences and the social and behavioral sciences.

B. The ability to learn and apply learning to the graduate's career and life experience, requiring the capability to define problems; to use information resources such as libraries and computers; and to analyze, synthesize and integrate knowledge, perspectives and techniques. Information literacy is an important component of the B.A. in individualized studies program.

C. An understanding of the historic and global context of events and achievements over time as treated in subjects such as history, the arts and humanities.

D. Mastery of a considerable body of knowledge in one subject area or a group of related subjects.

# Individualized Studies

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

## Requirements for the Bachelor of Arts Degree

The minimum requirements for the baccalaureate degree are as follows:

1. completion of a minimum of 120 credits;
2. cumulative grade point ratio of 2.00;
3. cumulative grade point ratio of 2.00 in the upper-level courses completed at FDU;
4. upper-level credit courses: of the courses completed at FDU 24 credits (eight courses) must be upper-level;
5. at least 30 credits, *normally the last 30*, must be completed at FDU; and
6. residency requirement/time limit on degree completion as explained below.

A transfer student may transfer credit achieved through either formal course work or through proficiency examination to the extent that the credits transferred do not circumvent existing University policy requiring a minimum of 30 credits in residence, including at least 50 percent of the credits required for upper-level course selections to be taken at FDU.

Any course work completed more than 10 years before the projected date of awarding the degree (including work for which credit is transferred from another college) shall be evaluated for its currency by the appropriate department. Where it is deemed appropriate, the department will recommend courses to familiarize the student with more recent developments.

## Communication, Mathematics and Computer Requirements: 18 Credits (6 Courses)

The ability to use the English language orally and in writing, the ability to understand and use basic mathematical symbols and the mastery of basic computer skills are required of all students in the Bachelor of Arts in individualized studies program.

### Requirements

- Writing: *minimum 9 credits (3 courses)* — Any combination of freshman writing and advanced-level writing courses or their equivalents at other institutions. At least one advanced-level writing course must be taken at FDU. (Courses labeled Fundamentals of Composition are considered precollege level and do not count toward meeting degree requirements.)
  - Oral Communication: *3 credits (1 course)* — Public Speaking

- Mathematics: *6 credits (2 courses)* — At least two college-level math courses, finite math or a more advanced course.

## Liberal Arts and Sciences Requirements: 27 Credits (9 Courses)

A breadth and depth of study in the following areas is required of all degree candidates: 1) humanities, 2) social sciences and 3) natural sciences. Students will be exposed to social, scientific, aesthetic, moral and religious ideas, the purpose of which is to gain insight into how the concerns of people are interrelated, how knowledge has been accumulated and how unsolved problems remain a challenge to humanity.

### Requirements

- Humanities: *6 credits (2 courses)* — Six credits from at least two of the following areas:

Art History/Appreciation  
Foreign Language  
History  
Literature  
Music History/Appreciation  
Philosophy  
Theater History

- Social Sciences: *6 credits (2 courses)* — Six credits from at least two of the following areas:

Anthropology  
Economics  
Geography  
Political Science  
Psychology  
Sociology

- Scientific Analysis: *6 credits (2 courses)* — Six credits selected from the following areas. At least one must be a laboratory science course. A first-year science course for majors may be substituted for any of the recommended courses listed below:

Chemistry  
Earth and Planetary Sciences (Geology, Physical Science)  
Life Sciences (Biology)  
Physics

- Ethical and Moral Analysis: *3 credits (1 course)* — Three credits from the following areas:

Ethics  
Philosophy

- Art and Culture: *6 credits (2 courses)* — Six credits from at least two of the following areas:

Art                      Literature  
Film                     Theater

## University Core Requirement: 8 Credits (4 Courses)

Fairleigh Dickinson University requires all students to complete a common University Core curriculum consisting of four integrated courses with a strong emphasis on the liberal arts.

Required courses:

UNIV1001 Transitioning to University Life

UNIV1002 Preparing for Professional Life

UNIV2001 Cross-cultural Perspectives

UNIV2002 Global Issues

UNIV1001 Transitioning to University Life and UNIV1002 Preparing for Professional Life will be waived for students entering with 30 or more credits.

## International Perspective Requirement: 3 Credits (1 Course)

The world is no longer composed of countries that are isolated from each other. Economic, political and cultural independence have been replaced by interdependence. In the 21st century, knowledge of other countries is essential. This requirement may be met through one of a variety of designated courses from the following disciplines: anthropology, business, economics, fine arts, history, literature, music, philosophy, political science and sociology.

## Specialized Studies Requirement: 18 Credits

The Bachelor of Arts in individualized studies, in addition to providing certain skills and broad exposure to the major bodies of knowledge, also allows the opportunity to pursue a **single area of study in depth** or any other combination of courses that fit into an individualized cohesive course of study, including appropriate certificate programs. Undergraduate **certificate** programs are offered in **business and applied technology, business and communications, contemporary cyber communication, global transportation studies, health and human services administration, hospitality management\*, leadership administration, public service**

\*21 credits required under the specialized area in addition to 18 hotel/restaurant/tourism management credits required in the free elective section, only leaving 24 free elective credits to complete the degree.

# Interdisciplinary Studies

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

**administration, security and terrorism studies, stewardship and sustainability and transit safety and security.** A **specialization in hospitality management** through the Bachelor of Arts in individualized studies program is also offered on the Metropolitan Campus and at the Florham Campus. It is required that a minimum of 18 credits be completed in a single discipline or recognized concentration. Certain limitations apply, including a restriction on the number of courses offered by the Silberman College of Business that can be completed and applied toward the degree.

For more information, contact the Anthony J. Petrocelli College of Continuing Studies, Fairleigh Dickinson University, 150 Kotte Place, H-EWC-01, Hackensack, New Jersey 07601; (201) 692-2749.

## Global Gaming Management Specialization

A new specialization in global gaming management began in the fall 2015 semester. According to the American Gaming Association, the U.S. casino gaming industry generated \$81 billion in total revenue in 2014. Students are required to successfully complete 18 credits from the following courses:

	Credits
HRTM2250	
Casino Management.....	3
HRTM3233	
Casino Games Operations.....	3
HRTM3255	
Guest Service Strategies.....	3
HRTM4232	
Mathematics of Casino Games.....	3
HRTM4258	
Gaming Regulations and	
Control.....	3
HRTM4239	
Gaming Analytics.....	3

*\*21 credits required under the specialized area in addition to 18 hotel/restaurant/tourism management credits required in the free elective section, only leaving 24 free elective credits to complete the degree.*

## Interdisciplinary Studies Major (B.A.)

The Bachelor of Arts in interdisciplinary studies, based at the Metropolitan Campus, Teaneck, New Jersey, and at the Florham Campus, Madison, New Jersey, is designed to fundamentally change the way students are taught and the way they learn by shifting the emphasis from the traditional, discipline-based approach to a more comprehensive, integrative approach to the understanding of real-world problems, topics and issues.

The B.A. in interdisciplinary studies will prepare students with the skills, attitudes and flexibility of mind needed to be competitive in a global marketplace. Such students — indeed all students — can expect to live in a dynamic world where a series of career changes over a lifetime is most probable and where change and the unknown are inevitable. In such a world, proficiency in a number of related disciplines becomes a survival tool.

It is apparent that creativity is enhanced by knowledge of related disciplines and that new insights are gained by applying the methods of one discipline to that of another. The purpose of this program is to provide today's students and tomorrow's citizens with the academic tools and interdisciplinary perspective that will allow them to prosper in such an environment.

The curriculum draws upon the historic strengths of the faculty of Petrocelli College in scholarship, academic flexibility and innovative teaching techniques and on the wealth of knowledge and experience of the faculties of University College: Arts • Sciences • Professional Studies, the Maxwell Becton College of Arts and Sciences and the Silberman College of Business. Some of the special features of this program include individualized and predesigned concentrations, faculty mentoring and interdisciplinary seminars and capstone experience.

### Individualized and Predesigned Concentrations

In consultation with his or her mentor and on petition and approval, the student may construct an interdisciplinary concentration that is not already offered, but which best fits his or her needs. Although the College begins with a sample list of four

concentrations in leadership in a global society, sustainability, technology and society and women's leadership, others will be developed as needed between each student and his or her faculty adviser. It is likely that many other concentrations will be constructed based on the goals of individual students, and it is even possible that every student in the program will create a different concentration. See pages 120–121.

### Faculty Mentoring

A central part of the program involves close faculty-student interaction through mentoring. The student, in direct consultation with his or her mentor, will design a curriculum, including an interdisciplinary area of concentration, or choose from a concentration already designed. There will be a close academic relationship developed between each student and his or her mentor involving ongoing meetings to discuss progress and academic issues in each class and to plan and/or revise a curriculum. The mentor is to remain with the student for the full four years, if possible.

### Interdisciplinary Seminars and Capstone Experience

All interdisciplinary courses are seminars designed to provide students with knowledge of the methods and perspectives of the natural sciences, social sciences, humanities and the arts needed to understand and solve specific real-world problems. The seminars also will provide the framework for giving coherence to the interdisciplinary concentrations that will be selected by the student. In their senior year, students will pursue an individual or group capstone project in collaboration with a faculty mentor in which they will apply an interdisciplinary approach to a topic of their choice.

### Requirements for the Bachelor of Arts Degree

#### University Requirements (14 credits)

	Credits
INTER1009	
Perspectives on the Individual.....	3
INTER2013	
The American Experience.....	3
UNIV1001	
Transitioning to University Life.....	1



# Interdisciplinary Studies

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

	Credits
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

## **Requirements for the Major (30 credits)**

INTER1100	
Introduction to Interdisciplinary Studies I.....	1
INTER2007	
Language, Logic and Culture Seminar...3	
INTER2008	
Literature and Culture Seminar.....	3
INTER2012	
Evolutionary Psychology.....	3
INTER2025	
Design and Culture Workshop I.....	3
INTER2024	
Design and Culture Workshop II.....	3
INTER2101	
Globalization: Nature, Causes and Consequences.....	3
INTER2107	
Real World Statistics.....	3
INTER3001	
Evolution, Ecology and Climate Change.....	3
INTER3005	
Introduction to Interdisciplinary Studies II.....	1
INTER4000	
Introduction to Interdisciplinary Research.....	1
INTER4001	
Senior Capstone Experience I.....	3

## **Leadership in a Global Society Concentration**

### **Recommended Courses (18 credits minimum)**

INTER2007	
Language, Logic and Culture Seminar...3	
INTER2008	
Literature and Culture Seminar.....	3
INTER2023	
Design and Culture Workshop I.....	3
INTER2024	
Design and Culture Workshop II.....	3
INTER2101	
Globalization: Nature, Causes and Consequences.....	3
Adviser-approved Elective.....	3

## **Sustainability Concentration**

A new undergraduate concentration in sustainability began in the fall 2014 semester. Students will benefit from the knowledge and experience of an extremely important area of study.

Courses for 2014–2015 include  
 SUST1000 Introduction to Sustainability,  
 SUST1001 Environmental Science,  
 SUST2000 Environmental Economics and  
 SUST4000 Environmental Policy/Law/  
 Ethics. Future courses will include Ecology  
 and the Environment, Cost Benefits of Being  
 Green, the Green Supply Chain, Introduction  
 to Environmental Planning, Ecology and the  
 City, Climate and Global Warming, Rethink-  
 ing Global Development and Building Sus-  
 tainable Environments.

## **Technology and Society Concentration**

The concentration in technology and soci-  
 ety is an interdisciplinary program for stu-  
 dents who are interested in the impact  
 technology and technological change have  
 on societies across the globe and in the  
 social forces that lead to technological  
 change. It will provide students with the  
 basic skills that will enhance their ability  
 to pursue careers in the computer and  
 telecommunications industries (exclusive  
 of computer programming), the business  
 and sociological aspects of the environ-  
 mental sciences and other related pursuits.  
 It also will prepare students for graduate-  
 degree programs that touch on the concen-  
 tration.

### **Recommended Courses (24 credits)**

	Credits
24 credits from the following:	
COMM1101	
Mass Media: Image, Sound and Text.....	3
COMM2140	
New Technologies in Communication...3	
COMM3801	
Community, Computers and Cyberspace.....	3
CRIM3501	
Computer Technology in the Criminal Justice System.....	3
HIST2297	
History of Science and Technology.....	3
HUMN2211	
Technology and Literature.....	3
INTER3041	
Technology and Values.....	3

	Credits
MIS2111	
The Internet, E-commerce and Technology.....	3
With the permission of the student's facul- ty mentor and program director, other courses may be substituted.	

## **Women's Leadership Concentration**

A new undergraduate concentration in  
 women's leadership began in the fall 2015  
 semester. There is a growing awareness of  
 the role and the force of women in the pro-  
 fessional world. The concentration in  
 women's leadership explores these roles  
 women fill and the forces they exert. This  
 concentration emphasizes power of the  
 example of women in leadership roles as  
 both educational and paradigmatic. Three-  
 credit courses for the 2018–2019 academ-  
 ic year include:

INTER1007	
Gender and Identity.....	3
INTER1008	
Women and Leadership.....	3
INTER1015	
Women and Culture.....	3
INTER2015	
Studies in Women's Leadership.....	3
INTER2016	
Gender and Diversity in the Workplace.....	3
INTER2017	
Cultural Difference.....	3
INTER3015	
Legal Issues in Gender Studies.....	3
INTER3016	
Women and Power.....	3
INTER3017	
Leadership Development.....	3
INTER3018	
Career Planning for Women in Leadership.....	3
INTER3100	
Introduction to Organizational Development.....	3
INTER4015	
Generational Leadership.....	3
INTER4016	
Business Leadership.....	3

## **Individualized Concentrations (35 credits)**

Students may define their own areas of  
 concentration with the help and approval  
 of their faculty mentor and the program  
 director. The minimum number of credits  
 for a concentration is 18.

# Liberal Arts

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

## Liberal Arts Major (A.A.)

### Requirements for the Associate in Arts Degree

Candidates for an Associate in Arts degree must complete 60 credits of acceptable college work, including 46 credits of required core courses with a minimum grade point ratio of 2.00. Up to 64 credits can be earned in the Associate in Arts degree prior to transfer to an upper-division program.

### Freshman Basic Courses (29 credits)

	Credits
ART1061 Cultural Arts (1st or 2nd semester).....	3
ENGL1111 Literature and Composition I (1st semester).....	3
ENGL1112 Literature and Composition II (2nd semester).....	3
HIST2251 The Heritage of the Past I (1st semester).....	3
HIST2252 The Heritage of the Past II (2nd semester).....	3
PHYS1126 Earth Physics (1st or 2nd semester).....	3
PSYC1141 Psychology I (1st or 2nd semester).....	3
UNIV1001 Transitioning to University Life.....	1
UNIV1002 Preparing for Professional Life.....	1

6 credits to be selected from the following course selections dependent on major:

MATH1131 College Mathematics I* (1st semester) (mathematics required) or	
MATH1141 Introduction to Mathematical Methods* (mathematics required).....	3
MATH1132 College Mathematics II* (2nd semester) or	

\*Course selection dependent upon major.

	Credits
MATH1142 Introduction to Statistics* (2nd semester) or	
PHIL1101 Introduction to Logic* (2nd semester) or	
MIS1135 Introduction to Computers* (1st or 2nd semester).....	3

### Sophomore Basic Courses (18 Credits)

ECON1121 Macroeconomics (3rd or 4th semester).....	3
ENGL2211 Masterpieces of Literature I (3rd semester) or	
ENGL2212 Masterpieces of Literature II (4th semester).....	3
HIST2235 The Modern World (3rd or 4th semester).....	3
PHIL2271 Philosophy (3rd or 4th semester).....	3
UNIV2001 Cross-cultural Perspectives.....	3
UNIV2002 Global Issues.....	3

### Electives (15–19 Credits)

Students at Petrocelli College are permitted to take selected electives from the many and varied course offerings of the University College: Arts • Sciences • Professional Studies, including the Peter Sammartino School of Education and the Henry P. Becton School of Nursing and Allied Health; from the Silberman College of Business; and from the Maxwell Becton College of Arts and Sciences.

Certain elective courses critical in the development of an upper-division major are offered at Petrocelli College as part of the regular College program. A student is, therefore, able to build toward a major in a bachelor's degree through the use of a carefully selected elective program.

In addition to the wide variety of University electives, the College offers certain courses designed to complement the basic College program. These courses are reviewed regularly, and changes are effected to suit the needs of the student.

\*Course selection dependent upon major.

### Tuition

Tuition for academic year: new and continuing students — \$38,418.00.\*

### Program for Adult Learners

Leading to the Associate in Arts (A.A.) in liberal arts, degree studies in this program are offered on the Metropolitan Campus, Teaneck, New Jersey. Nearly all classes are held in the evening, including Fridays and on Saturdays. The College emphasizes small and informal classes, strong academic counseling and close student-faculty relationships.

Students in the program can earn their A.A. degrees in as little as two years. The overwhelming majority of students in the program go on to pursue baccalaureate degrees in liberal arts, science or business administration. In 2009, a completely online A.A. degree program became available.

For more information, contact the Anthony J. Petrocelli College of Continuing Studies at (201) 692-2746.

### Gateway to the Future (MiraeRo) Program

Designed for recent immigrants from South Korea, the MiraeRo Gateway Program is a Korean-to-English transition program with credit courses offered in Korean and English, leading to an associate's or bachelor's degree.

By attending the Korean Program, students can develop their English skills through a professional and structured program of study on the Metropolitan Campus in Teaneck, New Jersey. Students complete an assessment of written and verbal English skills at the conclusion of the associate's degree program and enroll in baccalaureate classes that are in English. To learn more about the opportunities offered, contact (201) 692-7178 or visit <https://petrocelli.fdu.edu/complete>.

### Gateway to the Future® (Puerta al Futuro®) Program

This 60-credit program, which began in the fall of 2003, enables Spanish-speaking adults to learn English and earn an Associate in Arts degree through progressive all-Spanish to all-English course work.

*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.*

# Sports Administration

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

By attending evening and Saturday classes as a cohort, participants in the Gateway to the Future (*Puerta al Futuro*®) program develop their English writing and speaking skills through a professional and structured program of study — plus earn their A.A. degrees — in just three years.

Extensive English language instruction is provided during the first two years of the program.

The program is offered on the Metropolitan Campus, Teaneck, New Jersey, and at several off-campus locations. The *Puerta al Futuro*® program combines proven quality language training with the invaluable professional skills acquired through college-level studies. These skills include the ability to communicate effectively, think critically and work as a member of a team. Upon successful completion of the program, students will have the credentials needed to transfer into a baccalaureate program at the University.

For more information, contact Petrocelli College at (201) 692-2625.

## Latino Promise® Program

Petrocelli College has established the Latino Promise® Program. Designed for traditional-age students who are attending the Metropolitan Campus, Latino Promise® provides support through Petrocelli College academic degree programs, scholarships and financial aid; a seminar program offered by successful Latino leaders; a personalized academic advisement program; and the *Puerta al Futuro*® Language Laboratory.

For information, contact (201) 692-2676.

## Sports Administration Major (B.A.)

The goal of the bachelor of arts in sports administration is to provide undergraduate-level studies for the traditional student seeking a career in sports administration including the areas of: recreation, youth, collegiate and professional leagues.

### Requirements for the Bachelor of Arts Degree – Metropolitan Campus

#### First Year

	Credits
<b>1st Semester</b>	
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1101	
Comprehensive Mathematics	
or	
MATH1151	
College Mathematics I.....	3
SPAD2004	
Introduction to Sports	
Administration.....	3
UNIV1001	
Transitioning to University Life.....	1
Humanities Course.....	3
Social and Behavioral Sciences Course.....	3
	Total..... 16

#### 2nd Semester

ENWR1002	
Composition II: Research	
and Argument.....	3
MIS1135	
Introduction to Computers	
or	
MIS1045	
Information Technology for Business....	3
SPAD2014	
Ethical Issues in Sports.....	3
UNIV1002	
Preparing for Professional Life.....	1
Humanities Course.....	3
Social and Behavioral Sciences Course.....	3
	Total..... 16

#### Second Year

#### 3rd Semester

COMM	
Communication Course 2000	
or above.....	3
ECON2001	
Introduction to Microeconomics.....	3
SPAD3010	
Job-search Strategies.....	1

	Credits
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total..... 16

#### 4th Semester

ECON2102	
Introduction to Macroeconomics.....	3
SPAD	
Section C** Course.....	3
UNIV2002	
Global Issues.....	3
Foreign Language Course.....	3
Free Elective.....	3
	Total..... 15

#### Third Year

#### 5th Semester

PHYS1026, PHYS1126	
Earth Physics (Lecture and	
Laboratory).....	3
SPAD2025	
Global Perspectives in Sports.....	3
SPAD	
Section B* Courses.....	6
SPAD	
Section C** Course.....	3
	Total..... 15

#### 6th Semester

BIOL	
BIOL1105 The Human	
Environment	
or	
BIOL1180 Climate Change	
Biology	
or	
Approval by academic adviser.....	3
SPAD4000	
International Sports Administration.....	3
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
Free Elective.....	3
	Total..... 15

#### Fourth Year

#### 7th Semester

ART	
ART1103 Principles of Art	
Appreciation	
or	
ART1177 Introduction to	
Digital Media	
or	

\*See Section B page 124.

\*\*See Section C page 125.

Credits

# Sports Administration

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

	Credits
Approval by academic adviser.....	3
SPAD	
Section B* Course.....	3
SPAD	
Section C** Courses.....	6
Free Elective.....	3
Total.....	15

## 8th Semester

SPAD2018	
Sports Internship.....	3
SPAD	
Section B* Course.....	3
Free Electives.....	6
Total.....	12

## Requirements for the Bachelor of Arts Degree - Florham Campus

### First Year

#### 1st Semester

ENGW1101	
College Writing.....	3
MATH1126	
Contemporary Mathematics	
or	
MATH1128	
Mathematical Methods.....	3
SPAD2004	
Introduction to Sports	
Administration.....	3
UNIV1001	
Transitioning to University Life.....	1
Humanities Course.....	3
Social and Behavioral Sciences Course.....	3
Total.....	16

#### 2nd Semester

ENGW1102	
Research Writing Workshop.....	3
MIS1045	
Information Technology for Business....	3
SPAD2014	
Ethical Issues in Sports.....	3
UNIV1002	
Preparing for Professional Life.....	1
Humanities Course.....	3
Social and Behavioral Sciences Course.....	3
Total.....	16

## Second Year

### 3rd Semester

COMM	
Communication Course 2000	
or above.....	3
ECON2001	
Introduction to Microeconomics.....	3
SPAD3010	
Job-search Strategies.....	1
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

### 4th Semester

ECON2102	
Introduction to Macroeconomics.....	3
SPAD	
Section C** Course.....	3
UNIV2002	
Global Issues.....	3
Foreign Language Course.....	4
Free Elective.....	3
Total.....	16

## Third Year

### 5th Semester

BIOL1070, BIOL1071	
Ecosystem and Environmental	
Science (Lecture and Laboratory)....	4
SPAD2025	
Global Perspectives in Sports.....	3
SPAD	
Section B* Courses.....	6
SPAD	
Section C** Course.....	3
Total.....	16

### 6th Semester

BIOL	
BIOL1005 Current Topics in	
Biology	
or	
BIOL1010 Human Sexuality	
or	
BIOL1080 Structure and	
Function of the Human Body	
or	
BIOL1090 Human Biology and	
Health	
or	
Approval by academic adviser.....	3
SPAD4000	
International Sports Administration.....	3

	Credits
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
Free Elective.....	3
Total.....	15

## Fourth Year

### 7th Semester

SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
SPAD	
Section C** Course.....	1
Creative and Expressive Arts.....	3
Free Elective.....	3
Total.....	13

### 8th Semester

SPAD2018	
Sports Internship.....	3
SPAD	
Section B* Course.....	3
Free Electives.....	6
Total.....	12

Students will be required to complete the following:

### Section B (18 credits)

SPAD2010	Legal Aspects in Sports Administration
SPAD2015	Team Development
SPAD2019	Sports, Marketing, Public Relations
SPAD2020	Fundraising in Sports
SPAD2022	Facility Management
SPAD2025	Global Perspectives in Sports
SPAD3000	Fiscal Concept in Sports
SPAD3003	Sports and Society
SPAD3024	Special Topics in Sports Industries
SPAD3030	Human Resource Administration in Sports
SPAD4001	Sports Internship II

\*See Section B this page.  
 \*\*See Section C page 125.

\*See Section B this page.  
 \*\*See Section C page 125.

\*See Section B this page.  
 \*\*See Section C page 125.

**Section C (18 credits for the Metropolitan Campus, 16 credits for the Florham Campus)**

ACCT2021	Introductory Financial Accounting
ACCT2022	Introductory Managerial Accounting
COMM	2000-level course or above
LAW2276	Business and the Law
SPAD2012	Nutrition and Wellness
SPAD2013	Exercise Science for the Sports Administration Professional
SPAD2016	Stress Management
SPAD2017	Safety, First Aid and Prevention of Injury
SPAD2021	Strength and Conditioning
SPAD2025	Global Perspectives in Sports
SPAD3001	Theory, Philosophy and Principles of Coaching
SPAD3002	Human Kinesiology
SPAD3004	Youth Program Administration
SPAD3005	Management in Athletic Training, Athletics and Health
SPCH1107	Fundamentals of Speech
Courses approved by academic adviser – allowed up to 16 credits (Florham Campus)/18 credits (Metropolitan Campus)	

**Combined B.A./M.S.A**

For information go to page 225.

## Faculty & Staff

### Administration

L.R. Braverman, Dean  
J. Tormey, Director, International School of Hospitality and Tourism Management  
D.A. Fredericks, Associate Dean of Continuing Education Operations and College Learning Assessments  
K.H. Zatz, Assistant Dean of Administrative Science  
J. Steiner, Director of Online Programs  
F. Pantaleo, Coordinator and Adviser for Undergraduate Off-campus Programs  
M. Edwards, Director, Bachelor of Arts in Interdisciplinary Studies Program  
M. Haines, Director of Student Support Services  
F. Parra, Assistant Director and Adviser of Undergraduate Programs  
F. Alonso, Director, *Puerta al Futuro*<sup>®</sup> Program and Latino Promise<sup>®</sup> Program  
J.C. Kim, Co-director, Sports Administration Program  
R. Lubisco, Co-director, Sports Administration Program

### Faculty

C. Acosta, F. Alonso, W. Antoine, W. Aroca, B. Assadi, J. Bachman, M. Barto, P. Blank, L.R. Braverman, J. Buenahora, C. Bygrave, M. Collado, J. Devine, R. Dreher, P. Durso, M. Edwards, A. Garg, I. Gersh, M. Hawzen, D. Hoover, F. Karger, J.C. Kim, E. Kovacs, L. Kurland, P. Laubsch, E.J.Lee, X. Li, T. Llallire, R. Lubisco, P. MacIntyre, S. McCloud, R. Medaska, F. Oliver, E. Oliveros, M. Oujo, F. Parra, A. Ritz, J. Rodriguez, W. Schuber, R. Selig, T. Swanzey, W. Toms, J. Tormey, L. Ultan

# University College: Arts • Sciences • Professional Studies

## Majors

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### Allied Health Technologies (B.S.A.H.T.)

*Concentration: health science completion degree*

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### Art (B.A.)

*Concentrations: arts management, computer art and design, graphic art and design, painting/drawing*

*Minors: computer animation, computer graphics, digital media for advertising, digital tools for social media, fine art techniques, generalist art, printmaking*

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### Biochemistry (B.S.)

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### Biology (B.S.)

*Concentrations: biotechnology, chemistry, environmental science, human physiology*

*Minors: biology, environmental science*

---

### Chemistry (B.S.)

*Concentration: prepharmacy program*

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### Civil Engineering (B.S.C.E.)

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### Civil Engineering Technology (B.S.Civ.E.T.)

---

### Clinical Laboratory Sciences (B.S.C.L.S.)

*Concentration: medical laboratory sciences*

---

### Communication (B.A.)

*Concentrations: broadcasting, convergent journalism, radio management, TV/digital editing and production*

*Minors: advertising, communication, convergent journalism, speech, sports media studies*

---

### Computer Science (B.S.)

*Concentrations: cybersecurity and information assurance, database management, game and mobile application development, information security administration*

*Minor: computer science*

---

### Construction Engineering Technology (B.S.Con.E.T.)

---

### Criminal Justice (B.A.)

*Minors: computer forensics, criminal justice, legal studies, social justice advocacy*

---

### Electrical Engineering (B.S.E.E.)

*Minor: electrical engineering*

---

### Electrical Engineering Technology (B.S.E.E.T.)

*Minor: electrical engineering technology*

---

### English Language and Literature (B.A.)

*Minors: creative writing, English language and literature*

---

### Fine Arts (B.A.)

*Minor: theater*

---

### Health Information Management (B.S.H.I.M.)

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### Health Studies (B.S.H.S.)

*Concentrations (Tracks): general, science*

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### History (B.A.)

*Minor: history*

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### Humanities (B.A.)

*Concentrations: American studies, British studies, digital humanities, global and cultural studies, liberal studies, sustainability*

*Minors: American studies, British studies, digital humanities, gender and sexuality studies, global and cultural studies, sustainability*

---

### Information Technology (B.S.)

*Concentrations: network and system administration, security and forensics, web-development technology*

*Minors: computer forensics, information technology, website design and development*

*Certificate: website design and development*

---

### International Affairs (B.A.)

*Minor: international affairs*

---

### Marine Biology (B.S.)

*Concentration: environmental science*

*Minor: marine biology*

---

### Mathematics (B.A.)

*Minor: specific discipline*

---

### Mathematics (B.S.)

*Concentrations: applied mathematics, pharmaceutical biostatistics, pure mathematics*

*Minor: mathematics*

---

### Mechanical Engineering (B.S.M.E.)

---

### Mechanical Engineering Technology (B.S.M.E.T.)

*Minor: mechanical engineering technology*

---

### Medical Imaging Sciences (B.S.M.I.S.)

*Concentrations: cardiovascular sonography, diagnostic medical sonography*

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### Medical Technology (B.S.)

---

### Nursing (B.S.N.)

---

### Political Science (B.A.)

*Concentrations: American government and politics, comparative government and politics, international relations, political thought and theory*

*Minors: legal studies, political science*

---

### Psychology (B.A.)

*Concentrations: clinical social work, consumer psychology, forensic psychology, mental health, organizational behavior/human resources*

*Minors: clinical social work, forensic psychology, psychology*

---

### Radiography (A.S.)

*Certificate: radiography*

---

### Radiologic Technology (B.S.) Completion Degree

---

### Science (B.S.)

*Minor: science*

---

### Spanish Language and Culture (B.A.)

*Minor: Spanish language and culture*

---

### Multidisciplinary Minors

*Africana studies, American studies, British studies, computer forensics, creative writing, digital humanities, English language and literature, gender and sexuality studies, global and cultural studies, legal studies, philosophy, religion and society, romance languages, sports media studies, sustainability*

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### Education/Teacher Certification

*(see QUEST Program)*

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## Metropolitan Campus, Teaneck, New Jersey, and Vancouver Campus, British Columbia, Canada

Vicki L. Cohen  
Interim Dean

### Mission

At University College: Arts • Sciences • Professional Studies the commitment is to educating students for the world.

University College emphasizes professionally accredited and career-oriented programs that prepare future leaders to work effectively in a global environment regardless of profession. Its wide array of programs is strongly grounded in the liberal arts, recognizing that professionals in all fields require a multidisciplinary and multicultural perspective to be successful. It also stresses experiential and field-based learning through internships, student-directed research, cooperative education and community service that supplement academic instruction, enhance career-related experiences and develop students' social and moral identities as productive citizens.

### Setting

The mission of University College is facilitated by its location in northern New Jersey's Bergen County with proximity and ease of access to New York City. Courses and curricula incorporate the unique commercial, scientific and cultural resources of the metropolitan area to create a learning laboratory of exceptional diversity and richness. The resources of this vital cosmopolitan area contribute to all aspects of University College activity, yet at the same time the College maintains a suburban campus atmosphere.

### Programs

University College offers a wide range of undergraduate and master's degree programs in such areas as psychology, criminal justice, education, the natural sciences, nursing, engineering and technology, computer science, communication and the humanities. Many of its schools offer accelerated and combined undergraduate/graduate degree programs as well as special areas of concentration and minors described in the appropriate sections by school.

Several accelerated programs are available for exceptional students — **Baccalaureate/Master:** Bachelor of Arts/Master of

Public Administration (page 207); Bachelor of Arts or Science/Master of Arts in Teaching (page 208); Bachelor of Arts in criminal justice/Master of Arts in criminal justice (page 215); Bachelor of Arts in political science/Master of Arts in criminal justice (page 218); Bachelor of Arts in political science/Master of Arts in political science (page 219); Bachelor of Arts in political science/Master of Public Administration (page 220); Bachelor of Arts in psychology/Master of Arts in forensic psychology (page 221); Bachelor of Arts in psychology/Master of Arts in general/theoretical psychology (page 222); Bachelor of Arts/Master of Social Work with New York University (page 224); Bachelor of Science in biochemistry/Master of Science in applied clinical nutrition with School of Applied Clinical Nutrition, New York Chiropractic College (page 228); Bachelor of Science in biochemistry/Master of Science in cosmetic science (page 230); Bachelor of Science in biochemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (page 229); Bachelor of Science in biology/Master of Science in acupuncture and oriental medicine with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College (page 232); Bachelor of Science in chemistry/Master of Science in cosmetic science (page 237); Bachelor of Science in chemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (page 235); Bachelor of Science in biology/Master of Science in biology (page 235); Bachelor of Science in computer science/Master of Science in computer science (page 238); Bachelor of Science in computer science/Master of Science in management information systems (page 239); Bachelor of Science in Electrical Engineering/Master of Science in computer engineering (page 240); Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering (page 241); Bachelor of Science in information technology/Master of Science in computer science (page 243).

**Baccalaureate/Doctorate:** Bachelor of Science in biology/Doctor of Dental Medicine with Rutgers School of Dental Medicine (page 252); Bachelor of Science in biochemistry or biology or chemistry/Doctor of Dental Medicine with Lake Erie School of Osteopathic Medicine School of Dental Medicine (page 251); Bachelor of Science in biology/Doctor of Physical

Therapy with Rutgers School of Health Professions, Newark (page 262); Bachelor of Science/Medical Doctor with Ross University, School of Medicine (page 253); Bachelor of Science/Medical Doctor with Universidad Autónoma de Guadalajara (page 255); Bachelor of Science in biology/Doctor of Chiropractic with New York Chiropractic College, Life Chiropractic College West Logan Chiropractic College, Palmer College of Chiropractic and Western States Chiropractic College (page 249); Bachelor of Science in biochemistry or biology or chemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (pages 244, 257, 266); Bachelor of Science in biology/Doctor of Osteopathy with Lake Erie College of Osteopathic Medicine (page 255); Bachelor of Science in biology/Doctor of Podiatric Medicine with New York College of Podiatric Medicine (page 263); Bachelor of Science in biology/Doctor of Veterinary Medicine with Ross University, School of Veterinary Medicine (page 264).

### Liberal Arts • Professional Studies Curricular Requirements

A Bachelor of Arts at Fairleigh Dickinson University prepares students to be well-rounded liberal arts and science graduates regardless of their major area of studies. The general education courses offer students a common ground of skills and knowledge and a wide array of subjects from which to choose in order to have a solid foundation as they develop their specialized interests. Fulfilling the University's mission to educate global citizens with a strong liberal arts education, students take courses in humanities and sciences to broaden their cultural literacy in all fields of study. General education courses strive to provide students with written and oral communication skills; analytical, critical and ethical thinking; quantitative and scientific reasoning; and global and cultural understanding of complex issues (quantitative, scientific and literary).

# Liberal Arts

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## General Education Requirements (53 credits)

### I. College Competencies (24 credits)

	Credits
Written Communication Courses (ENWR1001 Composition I: Rhetoric and Inquiry/ENWR1002 Composition II: Research and Argument).....	6
Oral Communication Course.....	3
Quantitative Analysis Course.....	3
Mathematics or Technology or Statistics Course.....	3
Ethical and Moral Analysis Course.....	3
Scientific Analysis Courses.....	6

### II. Liberal Arts Distribution (21 credits)

	Credits
Language Course.....	3
Social and Behavioral Sciences Courses.....	6
Arts and Culture Courses.....	6
Humanities Courses.....	6

### III. University Requirements (8 credits)

UNIV1001 Transitioning to University Life.....	1
UNIV1002 Preparing for Professional Life.....	1
UNIV2001 Cross-cultural Perspectives.....	3
UNIV2002 Global Issues.....	3

## General Education Requirements (53 credits)

### I. College Competencies (24 credits)

#### A. Written Communication (6 credits)

This requirement consists of 3 credits in ENWR1001 Composition I: Rhetoric and Inquiry and 3 credits in ENWR1002 Composition II: Research and Argument. An additional 6 writing-intensive credits in the major or other writing-intensive courses designated by the major program are required.

#### B. Oral Communication (3 credits)

Requirements consist of a 3-credit course that is substantially concerned with public speaking and oral presentations, typically a course in speech.

#### C. Quantitative Analysis (3 credits)

Students will take 3 credits of MATH1101 Comprehensive Mathematics, MATH1105 College Algebra, MATH1107 Precalculus or MATH1201 Calculus I to satisfy this requirement; upper-level MATH-prefix

courses may be substituted with prior approval.

#### D. Mathematics, Technology or Statistics (3 credits)

Students will take 3 credits of an upper-level mathematics course at a level higher than the course fulfilled in Quantitative Analysis: either MATH1105 College Algebra, MATH1107 Precalculus, MATH1201 Calculus I, MATH2202 Calculus II, MATH2243 Statistical Programming or MATH2337 Applied Statistics I; or one of the following courses: ENGR1301 Engineering Practices, Graphics and Design; ENGR2286 Digital System Design; ENGR3000 Modern Technologies: Principles, Applications and Impacts; CENG1205/EGTC1205 Surveying I; CENG1245/EGTC1245 Construction Materials and Systems; EGTC3261 Estimating I; EGTM2232 Mechanical Measurement and Devices; EGTM2235 Manufacturing Processes; CSCI1105 Survey of Computers and Computer Software; CSCI1201 Computer Programming I; any CSCI course above 1201; any INFO-prefix course; or PSYC2201 Statistics. Students must fulfill any applicable prerequisites for a course before taking it. In addition, they can take either MATH2337 Applied Statistics I or PSYC2201 Statistics, but not both in their course of study since MATH2337 and PSYC2201 cover many similar topics.

#### E. Ethical and Moral Analysis (3 credits)

Requirements consist of a 3-credit course that is substantially concerned with ethical theories and questions. Choose course from Philosophy (PHIL), Religion (RELI), a course that has “ethics” in its title or a course designated as meeting the requirement within a major program.

#### F. Scientific Analysis (6 credits)

Requirements consist of a minimum of 6 credits of laboratory science from Biology (BIOL), Chemistry (CHEM), Environmental Science (ENVR), Marine Biology (MBIO) or Physics (PHYS).

### II. Liberal Arts Distribution (21 credits)

#### A. Language (3 credits)

If a student is beginning a new language, Elementary II (1102) is required to fulfill the 3-credit language requirement. If the student is taking a language previously studied, successful completion of Interme-

diate I (2103) fulfills the requirement. The student taking a previously studied language must take the placement test. If the placement score is above the Intermediate I level, the student is excused from the language requirement and will need to replace those 3 language credits with a free elective.

### B. Social and Behavioral Sciences (6 credits)

This requirement can be satisfied by 6 credits of course work in Communication (COMM), Criminal Justice (CRIM), Political Science (POLS), Psychology (PSYC) or Sociology (SOC). Courses may be within the same discipline or different disciplines, but either way at least one course must be at the 2000 level or above.

### C. Arts and Culture (6 credits)

This requirement can be satisfied by 6 credits of course work in Dance (DAN), Music (MUSIC), Theater (THEA), Language (LANG) or any adviser-approved foreign language; or ART1141 Two-dimensional Design; ART1142 Three-dimensional Design; ART1144 Color Theory I; ART1151 General Drawing I; ART1153 Life Drawing I; ART1157 Printmaking I; ART1158 Silk-screen Printing I; ART1159 Monotype Printmaking; ART1161 Painting I; ART1167 Collage and Mixed Media; ART1169 Watercolor Painting I; ART1181 Sculpture I; ART1187 Ceramics I; ART1189 Jewelry I; ART1832 Alternative Art I; ART1841 Pastel Drawing I; COMM2103 Culture and Communication in Film; COMM2104 Language, Culture and Communication; COMM2210 Popular Culture and the Media; COMM2415 Sports and Popular Culture; COMM2743 History of Film: Special Topics; COMM2745 Introduction to Film; or EPS1201 English for Professional Success: Global Exchange — New York City as a Classroom.

### D. Humanities (6 credits)

This requirement can be satisfied by 6 credits of any course that has the prefix ENGL, HIST, HUMN, LANG, PHIL or RELI. Courses may be within the same discipline or different disciplines, but either way at least one course must be at the 2000 level or above.

### III. University Requirements (8 Credits)

UNIV1001 Transitioning to University Life
UNIV1002 Preparing for Professional Life
UNIV2001 Cross-cultural Perspectives
UNIV2002 Global Issues.



# Science and Engineering • Professional Studies

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Up to 6 credits from the major and 6 credits from the minor may be applied toward the General Education requirements.

It is strongly recommended that the College's General Education Requirements should be completed within the first two years for students pursuing the Bachelor of Arts degree.

## **The Major**

Each student must officially declare a major before entering the sixth semester. The courses in a major vary from a minimum of 30 credits above the introductory level to not more than 42. Details and explanations of the various Bachelor of Arts major programs are set out in the following pages. Dual majors are permitted providing requirements are met.

## **Mandatory Minor**

Students pursuing Bachelor of Arts degrees are required to complete a minor of at least 15 credits or second major in a specific discipline. Minors are specializations that supplement majors and contribute to general education in that they provide the student with an element of breadth. The requirements for minors and concentrations are provided in the section describing the major requirements.

## **Science and Engineering • Professional Studies Curricular Requirements**

Candidates for all baccalaureate degrees must complete at least 120–131 credits of course work. Certain programs require more than 120 credits for the degree. See each major for specific requirements. No student in University College may receive credit for graduation for any mathematics course that is a prerequisite to start a particular curriculum.

## **Science Programs**

University College offers programs leading to the Bachelor of Science degree in biochemistry, biology, chemistry, clinical laboratory sciences, computer science, health information management, information technology, marine biology, mathematics, medical imaging sciences, medical technology, nursing, radiologic technology and science. A prepharmacy program provides the first two years of instruction of the normal five-year B.S. degree in pharmacy. (See page 147.) Two programs (seven- and eight-year) with Lake Erie College of Osteopathic Medicine lead to a B.S. in

biology and a D.O. (doctor of osteopathy). A seven-year B.S. in biochemistry/biology/chemistry Pharm.D. joint program is offered with the FDU School of Pharmacy and Health Sciences. A seven-year joint program is offered with New York College of Podiatric Medicine leads to a B.S. in biology and a D.P.M. (doctor of podiatric medicine). A seven-year joint program with the Rutgers School of Dental Medicine leads to a B.S. in biology and a D.M.D. (doctor of dental medicine). An eight-year joint program with Lake Erie College of Osteopathic Medicine School of Dental Medicine leads to a B.S. in biochemistry or biology or chemistry and a D.M.D. (doctor of dental medicine). A seven-year B.S. in biology and a D.V.M. in veterinary medicine is offered with Ross University, St. Kitts. An eight-year B.S. in biology/Medical Doctor program is offered with Ross University School of Medicine, Commonwealth of Dominica. A seven-year B.S. in biology/Medical Doctor program is offered with Universidad Autónoma de Guadalajara, Mexico, and a B.S./Doctor of Chiropractic degree can be completed in six years, four months with selected Council on Chiropractic Education Colleges of Chiropractic. A B.S. in biology/Doctor of Physical Therapy (DPT) can be completed in six years with Rutgers School of Health Professions. (For more information on these programs, see pages 244–271.)

## **Engineering and Engineering Technology Programs**

The following degree programs are offered: Bachelor of Science in Civil Engineering, Bachelor of Science in Civil Engineering Technology, Bachelor of Science in Construction Engineering Technology, Bachelor of Science in Electrical Engineering, Bachelor of Science in Electrical Engineering Technology, Bachelor of Science in Mechanical Engineering and Bachelor of Science in Mechanical Engineering Technology.

## **Course Numbering System**

0000 — Developmental Level: remedial or developmental courses intended to prepare students for entry into the curriculum or to remove a deficiency, no degree credit.

1000 — Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula

or intended for freshmen or lower-division students.

2000 — Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.

3000 — Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.

4000 — Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.

5000–9000 — Graduate Level: a graduate course.

## **Other College Options**

### **Areas of Minor Study**

Students must develop a second area of study to complement the major study. A minimum of 15 credits will be required. Areas of concentration may be chosen from among those offered as multidisciplinary minors or in departments/schools of the University College: Arts • Sciences • Professional Studies or other University colleges.

### **Electives**

Adviser-approved electives may be chosen from regular courses offered in any of the baccalaureate programs of the other colleges or Wroxton College if prerequisites are met. Usually, elective courses are taken in the last two years. Courses that are used to explore major fields of interest also can be used as electives.

### **Independent Study**

In accord with school criteria, students may take individual intensive study under the direction of a specific faculty member. Approvals of the instructor, appropriate school director(s) and College dean are required. A total of 12 credits of independent study toward completion of requirements for the degree is permitted; any exceptions must be approved by the school director and the College dean.

### **Prelaw**

The minimum legal requirement for admission to a law school in New Jersey is the completion of three-fourths of a program leading to a bachelor's degree. Some law schools require the baccalaureate degree for admission.

# Education

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The University confers a baccalaureate degree for three years of undergraduate study and one year of law school study on the conditions described in this bulletin under the “Prelaw Degree Option,” page 281.

The Association of American Law Schools has drawn up a statement describing the best type of prelegal training. Although not specifying exact courses, it does emphasize three major areas for development:

1. comprehension and expression in words,
2. critical understanding of human institutions and values and
3. creative power in thinking.

The association further points out that these basic skills may be learned in any course where the instruction is excellent and the student extends himself or herself. The only negative suggestion is the avoidance of “law” courses on the undergraduate level, as this approach is not used in the education of lawyers.

Students should follow a well-designed program, choosing a major from among those offered. The program may include majors in criminal justice, English, history, languages, mathematics, political science, psychology and sciences. Courses in accounting, creative writing, government, logic and public speaking are recommended.

## Advisement

A Preprofessional Advisement Center at the Metropolitan Campus helps students to prepare applications for professional schools.

The advisement center at the Metropolitan Campus and each of the schools in University College maintain detailed outlines of the various programs in the College. These serve as checklists of requirements, which aid students in monitoring their progress toward their degrees.

## Education: QUEST Five-year B.A. or B.S./M.A.T. Program (Teacher Certification)\*

Courses leading to teacher certification are offered as a curriculum concentration in the QUEST five-year accelerated (B.A. or B.S./M.A.T.) program. (Also see pages 208–210.)

Students may select a QUEST program in general education (regular classroom teacher) at the P–3, elementary or secondary level or in English as a Second Language (ESL). QUEST also offers the opportunity to select a dual certification program in early childhood (P–3), elementary education (K–6) or secondary education (7–12) with a second certification as Teacher of Students with Disabilities (TSD). Students desiring the dual certification program in P–3, elementary or secondary education need to join QUEST in their freshman year. QUEST also offers the opportunity to select a dual certification program in elementary education (K–6) or secondary education (7–12) with a second certification in English as a Second Language (ESL). Students desiring the dual certification program in elementary or secondary education and ESL need to join QUEST in their freshman year. These students will need to complete three courses after their fifth year in the program to finish the ESL certification.

## Mission of the Peter Sammartino School of Education

The mission of the Peter Sammartino School of Education at Fairleigh Dickinson University is to foster a diverse community of effective, professional educators who are caring, competent, reflective, ethical leaders committed to advancing student learning and achievement, developing scholarship and promoting democratic ideals in our global society.

## Approved Programs

Programs in teacher education are accredited for certification by the New Jersey Department of Education as meeting its standards.

## QUEST Five-year Accelerated (B.A. or B.S./M.A.T.) Teacher Preparation Program

Students considering a career in teaching may be admitted to the QUEST (B.A. or B.S./M.A.T.) Teacher Preparation Program. QUEST is a combined degree program (see pages 208–210) which provides an opportunity to earn a bachelor’s degree in a liberal arts/science major, teacher certification in early childhood, elementary or secondary education and a Master of Arts in Teaching (M.A.T.) degree in five years or less. Students may be enrolled in QUEST as freshmen following

formal application and admittance to FDU based upon standard admissions requirements along with meeting School of Education and QUEST requirements. Students accepted to FDU in special programs must be referred to the School of Education through their program advisers and will be enrolled in QUEST subject to meeting QUEST program admissions standards. FDU students and admitted transfer students may be enrolled in QUEST in their sophomore or junior years subject to an interview with the School’s QUEST adviser, a review of transcripts and meeting QUEST program admissions standards. The required minimum cumulative grade point ratio for enrollment in QUEST is 3.00 for entering sophomores and juniors. Students are expected to meet these minimum academic standards and the performance standards established for the QUEST program in order to remain in the program.

## Admission to and Matriculation into QUEST Program

Freshmen entering the QUEST program are required to have a high school grade point average (GPA) of 3.00 or greater and a minimum of 1,080 on the SAT (combined verbal and mathematics) or a 21 composite on the ACT. Sophomores and juniors requesting admission to the QUEST program must have a college/university cumulative grade point ratio (CGPR) of 3.00 or greater. Students entering the QUEST program are not formally matriculated into QUEST until they have 60 credits and have met the following requirements:

- 60 earned credits;
- CGPR of 3.00 or greater; and
- Pass the new Praxis I – CORE Battery, which consists of three tests in basic skills as follows:
  1. Core Academic Skills for Educators: Reading
  2. Core Academic Skills for Educators: Writing
  3. Core Academic Skills for Educators: Mathematics

Students are required to take and pass the CORE Battery by the end of their sophomore year to continue in the QUEST program. Juniors seeking admission to QUEST must take and pass the CORE Battery during their first semester in the program. All three exams must be passed

\*Fairleigh Dickinson University’s School of Education has a pass rate of 100 percent on the HEA-Title II reporting for the 2016–2017 academic year.

to become matriculated. Students who do not pass all three exams may be restricted from taking education (EDUC) courses. Students may be exempted from the CORE Battery if they meet one of the following alternatives:

- SAT (if taken between April 1, 1995, to February 28, 2016): Reading 560; Mathematics 540
- SAT (if taken on or after March 1, 2016): Reading 610; Mathematics 570
- ACT (if taken on or after August 28, 1989): English 23; Mathematics 23
- If a candidate completed and passed the Pre-Professional Skills Test (PPST/Praxis I) prior to June 2014, the School of Education will accept passing scores on those exams to satisfy the basic skills requirement (passing scores on the PPST are as follows: Reading 175, Mathematics 174, Writing 173).

## Teacher Certification Requirements

At times, the New Jersey State Department of Education regulations change. Students are advised to check the New Jersey State Department of Education website <<http://www.state.nj.us/education/>> for current requirements.

In New Jersey, the State Department of Education grants approval for teacher certification based upon the following:

- a bachelor's degree from an accredited institution which includes 60 credits in liberal arts and science courses for elementary education, including at least 3 credits in physiology, biology or health;
- for middle-school candidates, a course in adolescent development and 15 or more credits in the content area for their certification (e.g., mathematics, English, etc.);
- for secondary candidates, a major in the subject area to be taught or 30 credits of a coherent sequence of courses in the subject area (e.g., mathematics, biology, etc.) where half of the courses are at an upper level (3000 and above);
- completion of appropriate education courses, field experiences and student teaching;
- full matriculation into the QUEST program as described above;
- a minimum cumulative grade point ratio (CGPR) of 3.00; and
- a passing score on the state-required Praxis II Test appropriate for the area of certification.

*Students must major in liberal arts or a science. In New Jersey, a student cannot major in education.* Individuals preparing for subject-area certification to teach at the secondary level (e.g., science, foreign languages, etc.) must major in the field they are planning to teach. Students interested in early childhood or elementary education may major in select liberal arts/science fields of interest or major in the humanities with a prescribed concentration of courses in a specific content area. Professional or “technical” majors (e.g., marketing, journalism, accounting, etc.) do not satisfy the state requirement for a B.A. or B.S. in a liberal arts/science specialization. Those individuals must present a transcript including 60 credits in the liberal arts or pure sciences in order to qualify for elementary certification.

Students seeking certification must complete the required courses of their liberal arts/science major, courses in “general education” and specific courses in the behavioral sciences (sociology, anthropology or psychology) that are related to teaching and learning. Together these areas must total a minimum of 60 course credits. The total of 60 “general education” credits must be distributed among the following areas: mathematics, science, American and English literature, American history and American studies, non-Western studies, Western history, art history or music, philosophy, technology, foreign language and psychology.

Students majoring in psychology are required to take 15 or more credits in a content area (English, history, mathematics or science).

Those individuals desiring to teach on the middle-school level (5\*, 6\*, 7, 8) must qualify for elementary school certification with subject-matter specialization endorsement. In order to do so, the following requirements must be met, according to N.J.A.C. 6A:9-8.1:

1. Hold a Certificate of Eligibility (CE), Certificate of Eligibility with Advanced Standing (CEAS) or standard certificate;
2. Complete study in the characteristics of children and young adolescents (adolescent psychology or developmental psychology);
3. Pass the appropriate state test in content-area specialization for middle school;

4. Complete a prescribed coherent sequence of courses in, but not limited to, one of the following specializations: 15 credits in a single CCCS subject field (mathematics, English, history, etc.);

Prospective teachers in the QUEST (B.A. or B.S./M.A.T.) program follow the traditional route to teacher certification, which requires the candidate: to hold a bachelor's degree from an accredited college or university; to have completed at least 30 credit hours in courses appropriate to the instructional field of certification; and to pass the state-required Praxis II Test. In the traditional route, the professional development requirement is met by completing an approved teacher-education program (which includes course work in education and three levels of practical [field-based] experience — initial exposure in the classroom followed by a more intensive field experience and culminating with a supervised student teaching experience). All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experiences (field experiences) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school with at least 175 hours prior to the final, full-time semester of student teaching. If students have met all of the requirements *and* have completed an approved student-teaching experience, they may be recommended for a “Certificate of Eligibility with Advanced Standing,” which qualifies them to be hired as first-year teachers with a provisional certificate to satisfy the state’s “Induction Year” requirement for standard certification. The hiring school district is required: 1) to provide the new teacher with a mentor and special on-the-job support and 2) to evaluate the new teacher’s performance and make a recommendation on the issuance (or nonissuance) of a standard certificate at the end of the year.

Regarding teacher certification in other states, New Jersey has “reciprocity” with a number of other states and the District of Columbia. Persons seeking employment in another state should write to that state’s office of teacher certification for information.

*\*This requirement does not apply to those who teach in a self-contained classroom.*

# PLCPA • Multidisciplinary Minors

University College: Arts • Sciences • Professional Studies  
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## Programs in Language, Culture and Professional Advancement (PLCPA)

PLCPA offers courses in English for Specific Purposes (ESP) for international students and any interested domestic students. These courses are called English for Professional Success (EPS), and they took the place of English as a Second Language (ESL) courses starting in fall 2006. The EPS courses have a dual purpose: to ensure the academic as well as professional success of the international students. Students will be exposed to the different genres of academic and professional discourse in their different fields of study.

### Placement Testing

While students may have achieved the TOEFL or other proof of English-proficiency score required for admission, further development in English proficiency may be necessary to support academic achievement and to ensure effective progress in the student's chosen academic program. All incoming graduate and undergraduate international students, unless exempt from testing, must be tested for placement during the orientation session. New international students should not assume that they are exempt from this English test even though they have had many years of English education in their home countries or abroad. Students will be placed into or exempted from taking an EPS course based on the result of their placement test.

### Pre-University Program

Effective spring 2013, the FDU Pre-University Program (PUP) provides opportunities for international students with intermediate English skills who meet the University's academic admission standards but require additional support in academic English to take highly specialized English language support courses in the first semester while they study and earn academic credit toward their bachelor's degree. Although the bulk of the courses are English for Professional (EPS) courses, students may earn up to 11 credits toward their undergraduate degree. Matriculated undergraduate students may be placed into this PUP EPS course based on their placement test.

### Matriculated Program

Undergraduate students who are placed into an EPS course must take the class and corequisite lab and will be charged tuition upon registration.

### EPS Courses

Students will take an EPS course that is relevant to their program of study. The courses offered are:

	Credits
EPS0099 Academic Writing Skills.....	4.5
EPS1008 Academic Writing Skills..... (for Metropolitan Campus only)	4.5
EPS1109 English for Occupational Purposes.....	3
EPS1201 English for Professional Success: Global Exchange — New York City as a Classroom.....	3

Each EPS course except for EPS1201 English for Professional Success: Global Exchange — New York City as a Classroom has a corequisite lab. Students will take only one EPS course (unless required or placed into two sets of EPS courses). However, to exit the program, a student must meet the learning objectives set by the curriculum. Students who fail to meet the minimum standards required to pass the course will have to repeat the course. Upon exiting the program, undergraduate students will take the Composition I: Rhetoric and Inquiry (ENWR1001) course.

### Application of Credits for EPS Courses

International undergraduate students can fulfill a free elective credit (upon approval of individual academic departments) or partially fulfill the Language and Culture Liberal Arts requirement upon the successful completion of the EPS course:

Silberman College of Business: 3 credits may be applied as free elective.

Other Metropolitan Campus programs: 3 credits may be applied to meet foreign-language requirements.

### Multidisciplinary Minors (15 credits total)

#### Africana Studies Minor

The Africana studies minor is a multidisciplinary program that provides students with opportunities to widen their perspectives and understanding of Africa's

social, political and economic systems and also to deepen their insights into the profound impact of African societies on countries throughout the world.

The program enables students to acquire the skills needed to engage successfully in a postgraduate degree in African studies. It also prepares them to lead academic and nonacademic organizations (such as NGOs, etc.) in an ever-changing global society and particularly in Africa.

With the experience, students should be able to secure employment with institutions, governmental and nongovernmental organizations where their knowledge of Africa may be required to travel to Africa with a sense of appreciation for the changing situation and diverse but dynamic nature of the continent.

Students are required to complete 15 credits of course work including the following:

- 6 credits of foundational courses, including AFST1101 Africa and Africans I: History and Traditions and AFST1102 Africa and Africans II: Communities and Culture.
- 9 credits of electives from a list of courses divided into three main themes: Africa centered; Africa diaspora (including African-American studies); and Africa in the global context.

Questions about advising, inclusion of courses in the concentration may be directed to the School of Criminal Justice, Political Science and International Studies at (201) 692-2465.

#### American Studies Minor

This 15-credit minor explores the culture, history, literature and politics of the United States. In addition, through this minor, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this minor:

	Credits
ENGL2140 African-American Literature.....	3
ENGL3369 American Literature I.....	3
ENGL3370 American Literature II.....	3
ENGL3383 Ethnic Literature in the United States...	3
ENGL3409 Glory and Shame: America on Film.....	3
HIST1114 U.S. History to 1865.....	3

# Multidisciplinary Minors

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	Credits
HIST1115	
U.S. History Since 1865.....	3
HIST2102	
Sports in America.....	3
HIST2104	
United States Social and Cultural History.....	3
HIST2107	
U.S. Economic History.....	3
HIST2108	
The American Presidency.....	3
HIST3101	
American Immigration.....	3
HIST3102	
Race in America.....	3
HIST3104	
U.S. Diplomatic History.....	3
HIST3105	
U.S. Environmental History.....	3
HIST3106	
Culture and Technology in American History.....	3
HIST3107	
U.S. Constitutional History.....	3
HIST3120	
Colonial and Revolutionary America.....	3
HIST3123	
The U.S. Civil War and Reconstruction.....	3
HUMN2443/PHIL2443	
African-American Political Thought.....	3
HUMN3221	
Coming of Age in America.....	3
MUSIC1108	
From Elvis to J. Lo: Pop Music of the Past 50 Years.....	3
PHIL1105/RELI1105	
World Religions in America.....	3
POLS2251	
Foreign Policy of the United States.....	3
POLS2253	
American Government.....	3
POLS3312	
The American Congress.....	3
POLS3349	
African-American Politics.....	3
Other selected classes may be approved by a humanities faculty adviser. For information contact the School of the Humanities.	

## British Studies Minor

This 15-credit minor is ideal for students who wish to or have already spent time at FDU's Wroxton College in England. Specifically, the British studies minor offers students knowledge and insight into the culture, history, literature and politics of

England. In addition, through this minor, students develop a deeper understanding of the status of contemporary England and its place in the world today. The following courses count toward this minor:

	Credits
ART3415	
The Development of British Painting in Britain and North America*.....	3
COMM3026	
Communication: Culture and the Media in Britain*.....	3
ENGL2203	
British Literature I.....	3
ENGL2204	
British Literature II.....	3
ENGL3351	
Medieval Literature.....	3
ENGL3353	
Chaucer.....	3
ENGL3355	
Renaissance Literature.....	3
ENGL3357	
Shakespeare I.....	3
ENGL3358	
Shakespeare II.....	3
ENGL3359	
17th-century Literature.....	3
ENGL3361	
Milton.....	3
ENGL3363	
18th-century Literature.....	3
ENGL3365	
The Romantic Era I.....	3
ENGL3366	
The Romantic Era II.....	3
ENGL3367	
The Victorian Era I.....	3
ENGL3368	
The Victorian Era II.....	3
ENGL3421	
Not of an Age ... But for All Time*.....	3
ENGL3422	
"The Play's the Thing"*.....	3
ENGL3463	
England's Green and Pleasant Land*.....	3
ENGL3466	
Three 19th-century Writers*.....	3
ENGL3467	
18th-century Literature*.....	3
ENGL4447	
"The Tempest:" Music Rich and Strange.....	3
HIST3422	
Britain in the Modern Era*.....	3
HUMN4409	
The British Imagination: From King Arthur to Harry Potter.....	3

\*Offered at Wroxton College, England

	Credits
INTER3430	
The Anatomy of Contemporary Britain*.....	3
POLS3450	
British Government and Politics*.....	3
POLS3454	
Descent from Power: British Foreign Policy Since 1900*.....	3
POLS3456	
The Power and Personality of the British Prime Minister*.....	3
SOCI3440	
Women and Race in Modern Britain*.....	3
SOCI3445	
Social Policy in Contemporary Britain*.....	3
Other selected classes may be approved by a humanities faculty adviser. For information contact the School of the Humanities.	

## Computer Forensics Minor

The computer forensics minor involves the identification, preservation, extraction, interpretation and documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. This 15-credit minor will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

### Required Courses (12 credits)

CRIM2218	
Computer Technologies and Cyber Crime.....	3
CRIM3327	
File System Forensic Analysis and Investigation.....	3
INFO1101	
Computer Concepts and Technology.....	3
INFO4101	
Data Communications and Computer Networks I.....	3

### Elective (3 credits)

CRIM4010	
Computer Forensic, Software and Hardware Applications or Foundations of Cybersecurity.....	3
INFO4410	
Foundations of Cybersecurity.....	3

\*Offered at Wroxton College, England.

# Multidisciplinary Minors

University College: Arts • Sciences • Professional Studies  
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## Creative Writing Minor

This 15-credit minor enables students to express themselves by writing scripts, fiction, poetry and nonfiction. Since creative writing improves writing skills in general, all students will benefit from the minor in creative writing. Students in the minor will study works of literature to understand the expectations of the genres. Additionally, by writing in workshop settings, students will learn what makes fiction, poetry, script-writing and creative nonfiction both distinctive and unique. All students selecting the creative writing minor must take at least nine credits of creative writing courses from the following list. The remaining six credits can be fulfilled with any additional creative writing courses or any literature courses offered in the School of the Humanities:

	Credits
ENGL3325	
Creative Writing I (Fiction).....	3
ENGL3326	
Creative Writing II (Fiction).....	3
ENGL3327	
Creative Writing I (Poetry).....	3
ENGL3328	
Creative Writing II (Poetry).....	3
ENGL3333	
Creative Writing I (Nonfiction).....	3
ENGL3334	
Creative Writing II (Nonfiction).....	3
ENGL3335	
Creative Writing I (Scriptwriting).....	3
ENGL3336	
Creative Writing II (Scriptwriting).....	3
ENGL3337	
Creative Writing I (Cross-genre).....	3
ENGL3338	
Creative Writing II (Cross-genre).....	3

## Digital Humanities Minor

This 15-credit minor is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with everyone's lives, it has become more important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in professional and personal lives as well as to understand how these same technologies can help shape lives for better or worse. With a growing number of positions in the field of information technology

and projected shortage of information technologists, a digital humanities minor can help students become more competitive in the job market. The following courses count toward this minor:

	Credits
ART1174	
Desktop Publishing I.....	3
ART1177/COMM1177	
Introduction to Digital Media.....	3
ART1178	
Multimedia on the Internet.....	3
ART1179	
Digital Illustration and Design.....	3
ART1192	
Digital Photography I.....	3
ART1843	
Design for the Web.....	3
ART2275	
Computer Animation II.....	3
ART2294	
Two-dimensional Computer Animation.....	3
CRIM2235	
Cyber Crime.....	3
CSCI1105	
Survey of Computers and Computer Software.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
HUMN2444/PHIL2444	
Technology and Its Critics.....	3
HUMN3041/INTER3041	
Technology and Values.....	3
HUMN3350	
Social Life On and Off the Internet.....	3
INFO1101	
Computer Concepts and Technology.....	3
INFO1201	
Information Technology.....	3
INFO2105	
Internet and Web Applications.....	3
INFO3205	
Digital Media Publishing.....	3
PHIL3310	
Human Perspectives in a Computerized Society.....	3

## English Language and Literature Minor

The minor in English language and literature invites students to explore the literatures of the world and offers students opportunities to increase their critical and creative writing skills. A minor in English

also will help students cultivate the critical thinking and reading skills needed for many professions. Students choose 15 credits of English courses.

Suggested courses:	Credits
British Literature Course.....	3
American Literature Course.....	3
World Literature Course.....	3
English Literature Electives.....	6

## Gender and Sexuality Studies Minor

This interdisciplinary minor is for students who wish to explore gender and its relation to other axes of power: race, class, ethnicity and sexuality. These concepts will be used to analyze human experience in its bodily, political, economic and culture dimensions.

The minor consists of five elective courses to be chosen from the following list; no more than two courses can be taken in the same discipline:

CRIM1112	Minorities, Women and the Criminal Justice System.....	3
CRIM1135	Social Justice and Structural Inequality.....	3
CRIM2216	Sex, Deviance and the Law.....	3
CRIM3307	Domestic Violence.....	3
ENGL3324	Women in Literature.....	3
ENGL3396	South-African Literature, Sex, Politics.....	3
ENGL3399/HUMN3399	Continental Drift: Sex, Gender and Family in the South Asian Diaspora.....	3
HIST3103	Gender in U.S. History.....	3
HUMN2255/RELI2255	Person, Gender and Sexuality: Judaism, Christianity and Islam.....	3
HUMN2439	Radical Political Thought.....	3
HUMN2440/PHIL2440	Human Rights.....	3
HUMN3307/PHIL3307	Slavery and Global Ethics.....	3
LANG3322/HUMN3322	Latin-American Women Authors.....	3
PHIL2105	Current Moral and Social Issues.....	3

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	Credits		Credits		Credits
POLS2206		COMM2210		HUMN3316/RELI3316	
American Minority Politics.....	3	Popular Culture and the Media.....	3	Babylon the Great: Culture, Religion	
POLS3011		COMM2415		and Conflict in Iraq.....	3
Human Rights in Global		Sports and Popular Culture.....	3	HUMN3396	
Environment.....	3	COMM3102		South-African Literature.....	3
POLS3327		Media, History and Society.....	3	LANG2201	
Civil Rights and Liberties.....	3	COMM4468/HUMN4468		Cultural Awareness and Languages.....	3
POLS4320		Bollywood and Beyond: India in Film....	3	PHIL2321	
Women's America.....	3	ENGL3381		African Philosophy.....	3
PSYC3311		Popular Fiction.....	3	POLS2206	
Psychology of Love and		ENGL3382		American Minority Politics.....	3
Interpersonal Relations.....	3	Special Topics in Black Literature.....	3	POLS3324	
PSYC3325		ENGL3383		American Minority Groups.....	3
Psychology of Women.....	3	Ethnic Literature in the United States...3		POLS3349	
PSYC3370		ENGL3384		African-American Politics.....	3
Psychology of Men.....	3	Postcolonial Literature.....	3	POLS3363	
PSYC3384		ENGL3389		Middle East Politics.....	3
Theories of Personality.....	3	The Global Novel.....	3	POLS3364	
Other selected courses may be approved		ENGL3392		Middle East in World Affairs.....	3
by the school director.		International Literature.....	3	POLS3367	
		ENGL3396		Africa in World Affairs I.....	3
		South-African Literature, Sex,		POLS3368	
		Politics.....	3	Africa in World Affairs II.....	3
		ENGL3399/HUMN3399		POLS4463	
		Continental Drift: Sex, Gender and		Political and Economic Challenges	
		Family in the South Asian		in Africa.....	3
		Diaspora.....	3	Other selected classes may be approved by a	
		ENGL3430		humanities faculty adviser. For information	
		Contemporary African Literature.....	3	contact the School of the Humanities.	
		ENGL4445			
		Caribbean Literature.....	3		
		HIST1215			
		World History Since 1500.....	3		
		HIST2245			
		Islamic History.....	3		
		HIST3102			
		Race in America.....	3		
		HIST3202			
		Middle East.....	3		
		HIST3360			
		Modern African History.....	3		
		HUMN2440/PHIL2440			
		Human Rights.....	3		
		HUMN2443/PHIL2443			
		African-American Political Thought.....	3		
		HUMN2448/PHIL2448			
		Comparative Religions.....	3		
		HUMN2454			
		Music, Power and Freedom.....	3		
		HUMN2456			
		Dissent in Popular Culture: From			
		Inception to Iraq.....	3		
		HUMN3220			
		Political and Social History of Music....	3		
		HUMN3221			
		Coming of Age in America.....	3		
		HUMN3307			
		Slavery and Global Ethics.....	3		

## Global and Cultural Studies Minor

This 15-credit minor is designed for students who have an interest in global or popular cultures. As the workplace has become increasingly globalized, it has become especially important for professionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who select this minor will be able to choose from courses that emphasize a deeper understanding of media and popular culture (e.g., Mass Media: Image, Sound and Text; Popular Culture and the Media; Sports and Popular Culture, etc.) and courses that investigate international cultures and communities (Bollywood and Beyond: India in Film, Middle East Politics, Africa in World Affairs, etc.). The following courses count toward this minor:

AFST1101	
Africa and Africans I: History and	
Traditions.....	3
AFST1102	
Africa and Africans II:	
Communities and Culture.....	3
COMM1101	
Mass Media: Image, Sound and Text....	3
COMM1105	
Intercultural Communication.....	3
COMM2102	
International Communication.....	3
COMM2104	
Language, Culture and	
Communication.....	3

## Legal Studies Minor

The minor in legal studies is designed to provide students with advanced knowledge and understanding in the field of jurisprudence. The minor critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. By also focusing on developing analytical and critical-thinking skills, the program helps to prepare students who are interested in working within some aspect of the legal system and/or attending law school. The minor is open to all students within University College: Arts • Sciences • Professional Studies.

The legal studies minor consists of 15 credits: four required courses and one elective course.

### Required Courses (12 credits)

CRIM1120	
Introduction to Jurisprudence.....	3
CRIM3319	
Courts and the Judicial Process.....	3
CRIM3890	
Legal and Analytical Reasoning.....	3
POLS1101	
Introduction to Political Science.....	3

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## Elective Course (3 credits)

Select one of the following elective courses.\*  
Credits

CRIM1103	
Criminal Law.....	3
CRIM2100	
Professional and Legal Writing.....	3
CRIM2205	
Criminal Justice Research Methods.....	3
CRIM2214	
Criminal Procedure Law.....	3
HIST2105	
Crime in History.....	3
HIST2215	
Constitutional History.....	3
POLS2212	
International Law.....	3
POLS2253	
American Government.....	3
POLS2254	
Public Policy.....	3
POLS3327	
Civil Rights and Liberties.....	3
POLS3355	
American Constitutional Law I.....	3

## Philosophy Minor

The interdisciplinary minor in philosophy invites students to explore the life of the mind in greater depth by investigating world philosophy, political philosophy, ethics, logic, aesthetics and the philosophy of science. This minor is ideally suited for students seeking to enhance their critical-thinking skills in preparation for further academic study or for careers in law and many other professions.

Students choose 15 credits of philosophy courses in approved courses in biology, communications, criminal justice, history, humanities, philosophy, political science, psychology and/or religion. Students should see this page or go to <http://view2.fdu.edu/academics/university-college/university-college-minors/philosophy/> for a full list of courses that count toward the minor in philosophy.

Suggested courses:

Applied Ethics Course.....	3
Comparative Philosophy Course.....	3
Logic/Critical Thinking Course.....	3
Philosophy Electives.....	6

## Applied Ethics Courses

BIOL4405	Ethics in Science
COMM2443	Ethics in Media
CRIM3304	Criminal Justice Ethics
HIST2106	Ethical Issues in History
HUMN3307/	Slavery and Global Ethics
PHIL3307	
HUMN4438/	Ethics and Public Affairs
PHIL4438	
NURS3209	Bioethics
PHIL1103	Ethics
PHIL3300	Business Ethics
PHIL3310	Human Perspectives in a Computerized Society
PHIL3311	The Ethics of Food
POLS2606	Ethics and Politics
RELI3323	The Ethics of Jesus

## Comparative Philosophy and Religion Courses

HUMN2254/	War and Peace in
PHIL2254	Christianity, Judaism and Islam
HUMN2440/	Human Rights
PHIL2440	
HUMN2446/	Religion and Human
PHIL2446	Rights
HUMN2448/	Comparative Religions
PHIL2448	
HUMN3316/	Babylon the Great:
RELI3316	Culture, Religion and Conflict in Iraq
PHIL1105/	World Religions in
RELI1105	America
PHIL2105	Current Moral and Social Issues
PHIL2256	Fundamentalism in Religious Practice
PHIL2321	African Philosophy
PHIL2439	Radical Political Thought
PHIL2452	Ancient Political Thought
PHIL4310	Modern Political Thought
POLS3011	Human Rights in Global Environment
RELI2107	One God, Three Paths
RELI2255	Person, Gender and Sexuality: Judaism, Christianity and Islam
RELI2273	The Battle Over the Book
RELI3324	Islamic Religion — Past and Present
RELI3334	Religion and Politics

## Law, Logic and Critical Thinking Courses

CRIM1101	Introduction to Criminal Justice
CRIM1103	Criminal Law
CRIM1112	Minorities, Women and the Criminal Justice System
CRIM1120	Introduction to Jurisprudence
CRIM2214	Criminal Procedure Law
CRIM2216	Sex, Deviance and the Law
CRIM2250	Emerging Issues in Crime and Justice
CRIM3321	Drugs, Addictions and the Law
CRIM3890	Legal and Analytical Reasoning
PHIL1101	Introduction to Logic
PHIL2000	Logical Thinking
PHIL3302	Symbolic Logic
POLS2205	Comparative Legal Systems
POLS2212	International Law
POLS3355	American Constitutional Law I
POLS3356	American Constitutional Law II
PSYC3317	Psychology and the Law

## Religion and Society Minor

This 15-credit interdisciplinary minor embraces religion, philosophy of religion and the history/politics/sociology/psychology of religion. This minor would be ideally suited for any student interested in exploring the multifaceted significance of religion in the modern world. Students should see page 137 or go to <http://view2.fdu.edu/academics/university-college/university-college-minors/religion-and-society/> for a full list of courses that count toward the minor.

	Credits
Suggested program:	
Interdisciplinary Course in Religion and Society.....	3
Comparative Religion or Philosophy of Religion Course.....	3
History/Politics/Sociology/ Psychology of Religion Course.....	3
Religion and Society Electives.....	6

\*Students can take other courses with departmental approval



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## Religion and Society Courses

ENGL3377/	The Bible and Its Influence
HUMN3042	
HUMN2253/	The Search for Meaning:
PHIL2253	Religious Responses
HUMN2254/	War and Peace in
PHIL2254	Christianity, Judaism and Islam
HUMN2446/	Religion and Human Rights
PHIL2446	
HUMN3316/	Babylon the Great: Culture,
RELI3316	Religion and Conflict in Iraq
RELI4431	Selected Studies in Religion

## Comparative Religion or Philosophy of Religion Courses

HUMN2254/	War and Peace in
PHIL2254	Christianity, Judaism and Islam
HUMN2448/	Comparative Religions
PHIL2448	
HUMN3315	Jerusalem in Jerusalem
HUMN3317/	Ancient Egypt: Mummies/ Myth/Magic
RELI3317	
HUMN3321/	The Book of Job and Its
RELI3321	Interpreters
PHIL1105/	World Religions in America
RELI1105	
PHIL2251	Basic Jewish Thought
PHIL2252	Judaism and Modernity
RELI2107	One God, Three Paths
RELI2207/	Philosophy of Religion
PHIL2207	

## History, Politics, Sociology or Psychology of Religion Courses

HIST3342	Religion and Nation Building
HUMN3318	Jerusalem: The Holy City
HUMN4439/	Questioning Religion
PHIL4439	
PSYC3332	The Psychology of Religion
RELI2273	The Battle Over the Book
RELI3323	The Ethics of Jesus
RELI3324	Islamic Religion — Past and Present
RELI3334	Religion and Politics

## Two Electives

Choose any two of the interdisciplinary courses approved for the minor

## Romance Languages Minor

A minor for students interested in the interrelationship of romance languages. Spanish language and culture majors are not eligible for this minor. This minor requires 15 credits.

## Required Course (3 credits)

LANG3321		Credits
	Linguistics: Origin of Languages.....	3
Students must take 6 credits at the elementary level (or higher depending on placement) in two languages.		

## Select 12 credits from

FREN1101, FREN1102		
	Elementary French I and II.....	6
ITAL1101, ITAL1102		
	Elementary Italian I and II.....	6
SPAN1101, SPAN1102		
	Elementary Spanish I and II.....	6

## Sports Media Studies Minor

Sports media studies is a 15-credit interdisciplinary minor consisting of the following courses. Students must complete 15 credits from these courses with no more than three courses coming from one discipline. Appropriate courses used to fulfill the minor for sports media studies are as follows:

COMM2415		
	Sports and Popular Culture.....	3
COMM2743		
	History of Film: Special Topics*.....	3
COMM3431		
	Sports Information Writing**.....	3
COMM3432		
	Sports Journalism**.....	3
COMM4930		
	Selected Studies: Sports Ethics.....	3
COMM4933		
	Selected Studies: Leadership, Communication and Sport.....	3
HIST2102		
	Sports in America.....	3
PHED2422		
	Health and Nutrition.....	3
PHED4460		
	National Coaching Certification*.....	3
PSYC3359		
	Sport Psychology.....	3
SOCI1115		
	Sports in Society.....	3
SPCH4430		
	Selected Studies: Sportscasting.....	3
For information contact the School of Art and Media Studies.		

\*Course is acceptable if the topic is sports related (e.g., Sports in the American Film or Sports in American Cinema).

\*\* Course offered through Maxwell Becton College of Arts and Sciences.

## Sustainability Minor

This 15-credit minor provides students with a solid foundation in the growing field of sustainability, which includes the impact and long-term viability of environmentalism, social justice, ecology, health sciences, marine biology and food production, among other areas. As an increasing number of businesses, nonprofit organizations and educational institutions commit to “green” lifestyles and practices, FDU humanities graduates who choose this minor place themselves in a particularly competitive position in the job market. This minor is also augmented by the Career Development Center, which can help students get internships with various local environmental and sustainability-focused groups. The following courses count toward this minor:

## Required Course (3 credits)

BIOL1001, BIOL1011		Credits
	Principles of Modern Biology (Lecture and Laboratory).....	3

## Other Courses (12 credits)

BIOL1105, BIOL1115		
	The Human Environment (Lecture and Laboratory).....	3
BIOL2120, BIOL2121		
	Introduction to Aquaculture and Hydroponics (Lecture and Laboratory).....	3
BIOL2250, BIOL2150		
	Ecology and Field Biology (Lecture and Laboratory).....	4
ENGL3044		
	The Environment in Literature and Culture.....	3
ENGL3047		
	American Nature Writers.....	3
ENVR1001, ENVR1002		
	Introduction to Environmental Science (Lecture and Laboratory).....	3
ENVR1101, ENVR1102		
	Physical Geology (Lecture and Laboratory).....	3
ENVR1105		
	Weather and Climate.....	3
ENVR1111, ENVR1112		
	Oceanography (Lecture and Laboratory).....	4
ENVR1123		
	Natural Hazards.....	3

# Allied Health Technologies

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	Credits
ENVR1205, ENVR1215 The Great Pacific Northwest: Environmental Issues and Cultural Perspectives (Lecture and Laboratory).....	3
HIST3105 U.S. Environmental History.....	3
HUMN2447 Ecology for Life: Building a Lifestyle for a Sustainable Planet.....	3
MBIO1118, MBIO1128 Beach Ecology (Lecture and Laboratory).....	3
MBIO1209, MBIO1219 Introduction to Marine Biology (Lecture and Laboratory).....	4
PHIL3311 The Ethics of Food.....	3
POLS3011 Human Rights in Global Environment.....	3
SOCI3318 Health and Society: Access and Issues....	3

Other selected classes may be approved by a humanities faculty adviser. For information contact the School of the Humanities.

## Allied Health Technologies Major (B.S.A.H.T.)

### Henry P. Becton School of Nursing and Allied Health

The Bachelor of Science degree in Allied Health Technologies with a health science concentration is an advanced standing/ completion-degree program designed for allied health practitioners. The program's objectives are to provide educational opportunities for allied health practitioners who have graduated from an accredited program and are certified to practice and to provide career mobility and educational articulation for these students. Graduates must hold appropriate certification/licensure in their respective disciplines.

Registered/certified/licensed allied health graduates from an accredited hospital-based program receive up to 30 transfer credits toward the Bachelor of Science degree, depending on the evaluation of the hospital-training certificate. Additional transfer credits may be granted for courses that are taken at accredited institutions. Associate-degree applicants may receive up to 60 transfer credits.

The program is offered on a part-time or full-time basis. The curriculum is interdisciplinary in structure, with courses in the liberal arts and sciences.

### Requirements for the Bachelor of Science in Allied Health Technologies Degree - Health Science Concentration

#### Graduates of Hospital-based Program

#### General Education Requirements (47 credits)

#### College Competencies (24 credits)

	Credits
BIOL2203, BIOL2223 Human Anatomy and Physiology I (Lecture and Laboratory).....	4
BIOL2204, BIOL2224 Human Anatomy and Physiology II (Lecture and Laboratory).....	4
ENWR1001 Composition I: Rhetoric and Inquiry.....	3

	Credits
ENWR1002 Composition II: Research and Argument.....	3
MATH1107 Precalculus.....	4
MEDT1130 Bioethics.....	3
SPCH1155 Public Speaking.....	3
<b>Liberal Arts Distribution (15 credits)</b>	
ART Fine Arts Elective.....	3
ENGL English Literature Elective.....	3
HIST History Elective.....	3
PSYC1103 General Psychology.....	3
SPAN1111 Spanish for Health Personnel.....	3
<b>University Requirements (8 credits)</b>	
UNIV1001 Transitioning to University Life.....	1
UNIV1002 Preparing for Professional Life.....	1
UNIV2001 Cross-cultural Perspectives.....	3
UNIV2002 Global Issues.....	3
<b>Additional Core Requirements (13 credits)</b>	
BIOL2125, BIOL2126 Microbiology for the Health Sciences (Lecture and Laboratory)....	4
CSCI1105 Survey of Computers and Computer Software.....	3
EGTG2210 Technical Communications.....	3
PSYC2201 Statistics.....	3

#### Major Requirements (60 credits)

#### Required Major Courses (30 credits)

MEDT4301 American Health Care Systems.....	3
MEDT4302 Health Care Law and Policy.....	3
MEDT4305 Current Topics in Health Science I.....	3
MEDT4306 Current Topics in Health Science II.....	3
MGMT2600 Organizational Behavior.....	3
MGMT3700 Human Resources Management.....	3

	Credits
NURS2210	
Pathophysiology.....	3
NURS3208	
Introduction to Health Care	
Economics.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3

### **Hospital-based Program (30 credits)**

Upon the completion of a hospital-based program and passing the licensure/credentialing examination as an allied health practitioner, Fairleigh Dickinson University will award a minimum of 30 credits toward the Bachelor of Science in Allied Health Technologies degree with a concentration in health science.

### **Students with an Associate Degree**

Upon the completion of an associate degree and passing a licensure/credentialing examination as an allied health practitioner, Fairleigh Dickinson University will award up to 60 credits toward a Bachelor of Science in Allied Health Technologies. These transfer credits will satisfy the lower division B.S. degree requirements. The remaining credits needed for the B.S. in Allied Health Technologies are listed below.

### **Core Requirements (28 credits)**

#### **General Education Courses (22 credits)**

CSCI1105	
Survey of Computers and Computer	
Software.....	3
ENGL	
English Literature Elective.....	3
MATH1107	
Precalculus.....	4
PSYC1103	
General Psychology.....	3
PSYC2201	
Statistics.....	3
SPAN1111	
Spanish for Health Personnel.....	3
SPCH	
Oral Communication.....	3

#### **University Requirements (6 credits)**

UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

### **Major Requirements (33 credits)**

	Credits
MEDT1130	
Bioethics.....	3
MEDT4301	
American Health Care Systems.....	3
MEDT4302	
Health Care Law and Policy.....	3
MEDT4305	
Current Topics in Health Science I.....	3
MEDT4306	
Current Topics in Health Science II.....	3
MGMT2600	
Organizational Behavior.....	3
MGMT3700	
Human Resources Management.....	3
NURS2210	
Pathophysiology.....	3
NURS3208	
Introduction to Health Care	
Economics.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3

## **Art Major (B.A.)**

### **School of Art and Media Studies**

The school offers a major in art with concentrations in arts management, computer art and design, graphic art and design and painting/drawing.

Minors for non-fine arts majors are offered in art (computer animation, computer graphics, digital media for advertising, digital tools for social media, fine arts techniques, generalist art (any 15 hours) and printmaking and theater (see B.A. in fine arts for theater minor).

### **Requirements for the Bachelor of Arts Degree**

Students majoring in art must complete 42 credits of course work in art, 52 credits of liberal arts core requirements and a 15-credit minor concentration. Each of the separate concentrations has groups of required courses in its areas of specialization. Guidance by the students' individual advisers is essential in guiding them through each specialization.

The required courses in art are designed to provide students interested in the visual arts with a strong foundation program of 24 credits in drawing, design, color and art history. Additionally, in the senior year, a 6-credit senior project and seminar are required for the degree.

The remaining 15 credits (for a total of 42) may be taken in a variety of art electives, as well as required courses for the concentrations in arts management, computer art and design, graphic art and design and painting/drawing.

### **Outline of Program**

Except for the freshman foundation courses (which must be scheduled in the first and second semesters as indicated below), the semester assignment of courses in this outline is only suggested. Students have the option of distributing the electives, with the approval of a faculty adviser, among the semesters as they deem appropriate.

# Art

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## Freshman Foundation

<b>Required Art Courses</b>	Credits
ART1141 Two-dimensional Design (1st semester).....	3
ART1144 Color Theory I (2nd semester).....	3
ART1151 General Drawing I (1st semester).....	3
ART1153 Life Drawing I (2nd semester).....	3

## General Requirements

ART1107, ART1108 Development of Art I and II (3rd and 4th semesters).....	6
ART1120 Modern Art to Mid-century.....	3
ART4821 Portfolio.....	3

## Arts Management Concentration

The concentration in arts management is designed to provide undergraduate students with the background to work in gallery, museum and corporate-collection industries.

Candidates for this concentration must complete the following 3-credit courses:

ART1107	Development of Art I
ART1108	Development of Art II
ART1120	Modern Art to Mid-century
ART1141	Two-dimensional Design
ART1144	Color Theory I
ART1151	General Drawing I
ART1153	Life Drawing I
ART1177	Introduction to Digital Media
ART4438	Selected Studies: Arts Management Internship
ART4439	Selected Studies: Arts Management Internship

Students are strongly encouraged to complete the secondary area of concentration in business administration for non-College of Business students listed under the Silberman College of Business section.

## Computer Art and Design Concentration

The computer art and design concentration focuses on the interactive world of broadcast, 3D, gaming and animation. Students learn principles of 3D modeling, animation and interactivity including texture, lighting and camera action.

## Major Requirements (18 credits)

ART1107	Development of Art I
ART1108	Development of Art II
ART1141	Two-dimensional Design or
ART1142	Three-dimensional Design
ART1144	Color Theory I
ART1151	General Drawing I or
ART1161	Painting I
ART4821	Portfolio

## Major Concentration (15 credits)

Choose five from the following courses:

ART1177	Introduction to Digital Media
ART1178	Multimedia on the Internet
ART1192	Digital Photography I
ART1843	Design for the Web
ART2271	Adobe® After Effects: Broadcast Graphics
ART2274	Computer 3-Dimensional Modeling
ART2294	2-D Computer Animation
ART2295	3D Computer Animation
CSCI3317	Computer Game Programming

## Graphic Art and Design Concentration

The graphic art and design concentration exposes students to all aspects of graphic design and data visualization with outputs to print, web and smart devices.

## Major Requirements (18 credits)

ART1107	Development of Art I
ART1108	Development of Art II
ART1131	History of Graphic Design and Illustration
ART1144	Color Theory I
ART1151	General Drawing I or
ART1161	Painting I
ART4821	Portfolio

## Major Concentration (15 credits)

Choose five from the following courses:

ART1141	Two-dimensional Design
ART1167	Collage and Mixed Media
ART1174	Desktop Publishing I
ART1177	Introduction to Digital Media
ART1179	Digital Illustration and Design
ART1192	Digital Photography I
ART2215	Photoshop® for Advertisement and Illustration

COMM1000	Digital Storytelling
COMM2321	Advertising Principles
COMM3345	Advertising Copywriting and Layout

## Painting/Drawing Concentration

In addition to basic and advanced levels of painting and drawing courses, courses in color theory, two- and three-dimensional design, life drawing, watercolor, pastels, sculpture, ceramics, jewelry making and printmaking are offered.

## Major Requirements (42 credits)

### Visual Arts Foundation (24 credits)

ART1107	Development of Art I
ART1108	Development of Art II
ART1141	Two-dimensional Design
ART1144	Color Theory I
ART1151	General Drawing I
ART1153	Life Drawing I
ART4821	Portfolio
Any Art History Course	

### Major Concentration (18 credits)

## Art Minors

(For Non-Fine Arts and Non-Art Majors)

Students who desire a minor in art, and who are not majoring in fine arts, may enroll in this program. A selection of courses totaling at least 15 credits, and arranged with the guidance of a fine arts adviser, is required for a generalist. Other minors are below.

### Computer Animation Minor

ART1153	Life Drawing I
ART2271	Adobe® After Effects: Broadcast Graphics
ART2274	Computer 3-Dimensional Modeling
ART2294	2-D Computer Animation
ART2295	3D Computer Animation

### Computer Graphics Minor

ART1177	Introduction to Digital Media
ART1178	Multimedia on the Internet
ART1179	Digital Illustration and Design
ART1843	Design for the Web
ART2295	3D Computer Animation or
ART2271	Adobe® After Effects: Broadcast Graphics

## Digital Media for Advertising Minor

ART1170	Advertising Design
ART1174	Desktop Publishing I
ART1178	Multimedia on the Internet
ART1843	Design for the Web
ART2215	Photoshop® for Advertisement and Illustration

## Digital Tools for Social Media Minor

ART1177	Introduction to Digital Media
ART1178	Multimedia on the Internet
ART1843	Design for the Web
COMM1000	Digital Storytelling
COMM3444	Public Relations

## Fine Art Techniques Minor

ART1144	Color Theory I
ART1151	General Drawing I
ART1157	Printmaking I
ART1161	Painting I
ART1169	Watercolor Painting I or
ART1841	Pastel Drawing I

## Generalist Art Minor

Any 15 credits of ART classes

## Printmaking Minor

ART1144	Color Theory I
ART1151	General Drawing I
ART1157	Printmaking I
ART1158	Silk-screen Printing I
ART1159	Monotype Printmaking

# Biochemistry Major (B.S.)

## School of Natural Sciences

The emphasis of the biochemistry curriculum is at the chemical and molecular level and is strongly based on a chemistry foundation. It is designed for meeting the entrance requirements for medical and dental schools, and to prepare the students for careers in biochemistry and for graduate study in this important area.

CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I will be waived for students who achieve a satisfactory score on the Advanced Placement Chemistry Test. Students must have a grade of C- or higher in all major courses.

The School of Natural Sciences has a strict "C-gate" policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and one unit each of chemistry and physics.

## Requirements for the Bachelor of Science Degree

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I (Lecture).....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

2nd Semester	Credits
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II (Lecture).....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

## 3rd Semester

CHEM2261	
Organic Chemistry I (Lecture).....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I (Lecture).....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
Total.....	15

## 4th Semester

CHEM2262	
Organic Chemistry II (Lecture).....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	15

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Biology

University College: Arts • Sciences • Professional Studies  
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5th Semester	Credits
CHEM3241	
Physical Chemistry I (Lecture).....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
	Credits
Social and Behavioral Sciences	
Elective*.....	3
Advanced Mathematics Course**.....	3
Total.....	14

6th Semester	Credits
BIOL6733	
Enzymology.....	3
CHEM3242	
Physical Chemistry II (Lecture).....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
Free Electives.....	5
Total.....	13

7th Semester	Credits
BIOL4405	
Ethics in Science.....	3
CHEM2211	
Inorganic Chemistry I.....	3
CHEM3231, CHEM3232	
Analytical Chemistry (Lecture and Laboratory).....	4
Free Elective.....	3
Science Elective***.....	3
Total.....	16

8th Semester	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
CHEM4233	
Instrumental Analysis (Lecture).....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4314, CHEM3314	
Inorganic Chemistry II (Lecture and Laboratory).....	3
SPCH1155	
Public Speaking.....	3
Total.....	15

\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

\*\*Selected from MATH2203 Calculus III or MATH2537 Applied Statistics I.

\*\*\*Science Electives: may be chosen from upper-level undergraduate (3000–4000) or graduate science courses or independent studies.

## B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

(with School of Applied Clinical Nutrition, New York Chiropractic College)

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in applied clinical nutrition. For details see page 228.

## B.S. in Biochemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration. For details see page 229.

## B.S. in Biochemistry/M.S. in Cosmetic Science

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in cosmetic science. For details see page 230. This program is designed for students who plan a career in the cosmetic, toiletries or fragrance industries.

# Biology Major (B.S.)

## School of Natural Sciences

This curriculum is designed for students who plan to attend graduate school and for students who wish to prepare for admission to a school of medicine, dentistry, pharmacy, osteopathy, podiatry, veterinary medicine or chiropractic, as well as those not planning to take an advanced degree in biology. Students should consult the catalog of the school they plan to attend in order to include in their undergraduate programs any special prerequisites not included in the biology curriculum. The preprofessional adviser helps students prepare for entrance into their desired professions.

**Premedical Students:** Entrance credits vary, but most medical schools require three or four years of college. The biological sciences curriculum fulfills the basic requirements for admission to medical school. The Medical College Admission Test of American Medical Colleges also is required by medical schools. See page 281 for “Premedical Degree Option.”

**Predental Students:** The majority of the students accepted into dental school have completed at least three years of undergraduate work. The college study must include, as a minimum, at least two semesters’ credit in each of the following: English, biology, physics, inorganic/general chemistry and organic chemistry. Lectures and laboratory work are required in the science courses. The rest of the work may be in the liberal arts electives such as history, philosophy, psychology, economics, English, foreign languages, mathematics and sociology. See page 281 for “Predental Degree Option.”

The “Preprofessional Degree Option” may be considered by students accepted into any medical or dental school after completion of three years of college; consult the index for requirements. Preprofessional advisement is done by the school director, faculty and the preprofessional adviser.

## Combined B.S./M.S. in Biology:

Qualified biology majors in the fifth semester, with departmental approval and a grade point ratio of 3.00 or higher, may plan a program to complete the requirements for a Master of Science degree in one additional year beyond their bachelor’s program. See page 233 for details.

## Accelerated Programs with Professional Schools

University College has combined degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less time than the two degrees normally would require separately. These programs include:

- B.S./D.M.D. (Doctor of Dental Medicine) with Lake Erie College of Osteopathic Medicine School of Dental Medicine, Erie, Pa.
- B.S./D.M.D. with the Rutgers School of Dental Medicine, Newark, N.J.
- B.S./M.D. with Ross University School of Medicine, Portsmouth, Dominica, West Indies
- B.S./M.D. with Universidad Autónoma de Guadalajara, Mexico
- B.S./D.C. with Life Chiropractic College West, San Lorenzo, Calif.
- B.S./D.C. with Logan University, Chesterfield, Mo.
- B.S./D.C. with New York Chiropractic College, Seneca Falls, N.Y.
- B.S./D.C. with Palmer College of Chiropractic, Davenport, Iowa
- B.S./D.C. with University of Western States, Portland, Ore.
- B.S./D.V.M. (Doctor of Veterinary Medicine) with Ross University, School of Veterinary Medicine, St. Kitts
- B.S./D.P. (Doctor of Pharmacy) with FDU School of Pharmacy and Health Sciences, Florham Park, N.J.
- B.S./D.O. (Doctor of Osteopathy) with Lake Erie College of Osteopathic Medicine, Erie, Pa.
- B.S./D.P.T. (Doctor of Physical Therapy) with Rutgers School of Health Professions, Newark (only offered through the Henry P. Becton School of Nursing and Allied Health)
- B.S./D.P.M. (Doctor of Podiatric Medicine) with New York College of Podiatric Medicine, New York City
- B.S./M.S. with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College, Seneca Falls, N.Y.

See pages 244–271 for details.

## Requirements for the Bachelor of Science Degree

For matriculation in the biology major curriculum, successful completion of secondary-school courses in elementary algebra and plane geometry and a year of science are required.

Candidates for the Bachelor of Science degree must complete the following courses and earn a grade of C- or higher in the course work.

Students must have a C- or higher in BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; ENVR1111, ENVR1112 Oceanography; and MBIO1209 Introduction to Marine Biology to take a 2000- or higher-level science course.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

## Recommended Course Sequence

<b>1st Semester</b>	Credits
BIOL1251	
General Biology I (Lecture).....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I (Lecture).....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
UNIV1001	
Transitioning to University Life.....	1
	<b>Total..... 12</b>
<b>2nd Semester</b>	
BIOL1252	
General Biology II (Lecture).....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II (Lecture).....	3

CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH1107	
Precalculus	
	or
Mathematics Sequence*.....	4
UNIV1002	
Preparing for Professional Life.....	1
	<b>Total..... 16</b>

## 3rd Semester

BIOL2150, BIOL2250	
Ecology and Field Biology (Lecture and Laboratory)	
	or
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I (Lecture).....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
MATH1201	
Calculus I	
	or
MATH2202	
Calculus II.....	4
Humanities Course**.....	3
	<b>Total..... 16</b>

## 4th Semester

BIOL2237, BIOL2239	
Human Structure and Function (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II (Lecture).....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
Humanities Course***.....	3
	<b>Total..... 15</b>

\*In the freshman year, students are required to take either MATH1107 Precalculus or MATH1201 Calculus I. The first-year course must be followed by a second mathematics course in sequence (Math1201 Calculus I or MATH2202 Calculus II).

\*\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

Credits

# Biology

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## 5th Semester Credits

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I (Lecture).....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	15

## 6th Semester

BIOL3345	
Molecular Genetics.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
SPCH	
Oral Communication Elective.....	3
Social and Behavioral Sciences Elective*.....	3
Total.....	16

## 7th Semester

BIOL4405	
Ethics in Science.....	3
BIOL4432	
Selected Studies in Biology.....	3
BIOL4855, BIOL4856	
Molecular Biology Techniques (Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
UNIV2002	
Global Issues.....	3
Free Elective**.....	3
Total.....	17

## 8th Semester

BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4420	
Evolution.....	3
BIOL4901	
Biology Seminar II.....	1
Free Electives**.....	6
Total.....	14

\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

\*\*Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses. Physical education is recommended for students intending to attend schools of veterinary medicine.

## Biotechnology Concentration

The concentration in biotechnology is designed to provide the undergraduate student with a thorough background in molecular and cellular biology, with emphasis on current developments in areas including genetics, immunology, microbiology, cell physiology, recombinant DNA techniques and cell and tissue culture. This program prepares students for careers in research or the health care professions, as well as careers in business, law and scientific writing.

## 6th Semester Credits

BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
Social and Behavioral Sciences Elective*....	3
Free Electives**.....	6
Total.....	17

## 7th Semester

BIOL3345	
Molecular Genetics.....	3
BIOL4855	
Molecular Biology Techniques.....	4
BIOL4900	
Biology Seminar I.....	1
BIOL6700	
Advanced Biotechnology.....	3
UNIV2002	
Global Issues.....	3
Free Elective**.....	3
Total.....	17

## 8th Semester

BIOL4405	
Ethics in Science.....	3
BIOL4901	
Biology Seminar II.....	1
BIOL5306	
Immunology.....	3
BIOL6840	
Cell Culture.....	3
Oral Communication Elective.....	3
Total.....	13

\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course)

\*\*Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses. Physical education is recommended for students intending to attend schools of veterinary medicine.

## Chemistry Concentration

This concentration is designed for students who plan to attend graduate school or who wish to prepare for admission to a school of medicine, dentistry, chiropractic, etc., as well as those who are interested in entering directly into the workforce.

Candidates for a concentration in chemistry must complete the first five semesters of the biology major sequence, followed by the courses outlined below.

## 6th Semester Credits

BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
PHYS2202	
Physics Laboratory II.....	1
Credits	
PHYS2204	
University Physics II (Lecture).....	3
Free Electives*.....	5
Social and Behavioral Sciences Elective**....	3
Total.....	16

## 7th Semester

BIOL4900	
Biology Seminar I.....	1
CHEM2211	
Inorganic Chemistry I.....	3
CHEM3241, CHEM3243	
Physical Chemistry I (Lecture and Laboratory).....	5
CHEM3281	
Biochemistry I.....	3
UNIV2002	
Global Issues.....	3
Free Elective.....	3
Total.....	18

## 8th Semester

BIOL4405	
Ethics in Science.....	3
BIOL4901	
Biology Seminar II.....	1
CHEM3231, CHEM3232	
Analytical Chemistry (Lecture and Laboratory).....	4
CHEM3282	
Biochemistry II	
or	
BIOL6733	
Enzymology.....	3
Oral Communication Elective.....	3
Total.....	14

\*Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses.

Physical education is recommended for students intending to attend schools of veterinary medicine.

\*\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).



## Environmental Science Concentration

This concentration is designed for students who plan to attend graduate school as well as those who are interested in entering directly into the workforce.

Candidates for a concentration in environmental science must complete the first five semesters of the biology major sequence, followed by the courses outlined below.

6th Semester	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
Free Elective.....	3
Social and Behavioral Sciences Electives*...6	
Total.....	17

### 7th Semester

BIOL4900	
Biology Seminar I.....	1
BIOL6771	
Behavioral Ecology.....	3
BIOL6772	
Ecotoxicology.....	3
BIOL6775	
Physiological Ecology.....	3
UNIV2002	
Global Issues.....	3
Free Elective.....	3
Total.....	16

### 8th Semester

BIOL4405	
Ethics in Science.....	3
BIOL4414, BIOL4415	
Animal Behavior (Lecture and Laboratory).....	4
BIOL4420	
Evolution.....	3
BIOL4901	
Biology Seminar II.....	1
Oral Communication Elective.....	3
Total.....	14

## Human Physiology Concentration

This concentration is designed for students who plan to attend graduate school or who wish to prepare for admission to a school of medicine, dentistry, chiropractic, etc.

Candidates for a concentration in human physiology must complete the first four semesters of biology major sequence followed by the courses outlined below.

5th Semester	Credits
BIOL2237, BIOL2239	
Human Structure and Function I (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I (Lecture).....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	15

### 6th Semester

BIOL3357, BIOL3358	
Human Structure and Function II (Lecture and Laboratory).....	4
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
Social and Behavioral Sciences Electives*...6	
Total.....	18

### 7th Semester

BIOL4900	
Biology Seminar I.....	1
BIOL6745	
Endocrinology.....	3
BIOL6888	
Physiology of Disease.....	3
BIOL6890	
Neuroscience.....	3
BIOL6892	
Human Physiology.....	3
UNIV2002	
Global Issues.....	3
Total.....	16

### 8th Semester

BIOL4420	
Evolution.....	3
BIOL4901	
Biology Seminar II.....	1
Free Electives.....	6
Total.....	10

## Biology Minor

(For Non-Science Majors)

Required credits of 15-credit minor.

	Credits
BIOL1001, BIOL1011	
Principles of Modern Biology (Lecture and Laboratory).....	3
BIOL1060, BIOL1061	
Genetics and Society (Lecture and Laboratory).....	3
BIOL1105, BIOL1115	
The Human Environment (Lecture and Laboratory).....	3
BIOL1106, BIOL1116	
Over-the-Counter Drugs (Lecture and Laboratory).....	3
CHEM1118, CHEM1119	
Forensic Science (Lecture and Laboratory).....	3

## Environmental Science Minor

(For Non-Science Majors)

BIOL1105, BIOL1115	
The Human Environment (Lecture and Laboratory).....	3
ENVR1101, ENVR1102	
Physical Geology (Lecture and Laboratory).....	3
ENVR1111, ENVR1112	
Oceanography (Lecture and Laboratory).....	4
PHYS1125, PHYS1025	
Astronomy (Lecture and Laboratory)....	3
PHYS1126, PHYS1026	
Earth Physics (Lecture and Laboratory).....	3

## B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

(with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College)

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biology and a Master of Science degree in acupuncture and oriental medicine. For details see page 232.

\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

# Chemistry

University College: Arts • Sciences • Professional Studies  
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## Chemistry Major (B.S.)

### School of Natural Sciences

The Bachelor of Science with a major in chemistry program is designed for students who plan to enter graduate school or the chemical industry and for preprofessional students preparing for admission to a school of medicine, dentistry or veterinary medicine.

The Bachelor of Science with a major in chemistry program is particularly well suited to premedical students. Entrance requirements for most medical schools require an undergraduate program to include a general course in biology, general physics, English composition, a modern language and some calculus, in addition to a strong chemistry background. Premedical students should add to the Bachelor of Science with a major in chemistry program two semesters of general biology (botany and zoology) and, perhaps, one advanced biology course as electives. Preprofessional counseling for science and health careers is available on campus.

CHEM1201, CHEM1202 General Chemistry I, II and CHEM1203, CHEM1204 General Chemistry Laboratory I, II will be waived for students who achieve a satisfactory score on the Advanced Placement Chemistry Test. These students will register for CHEM2261, CHEM2262 Organic Chemistry I, II and CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II and will elect a two-semester sequence in advanced chemistry electives in their seventh and eighth semesters. Students must have a grade of C- or higher in major courses.

The School of Natural Sciences has a strict "C-gate" policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and one unit each of chemistry and physics.

### Requirements for the Bachelor of Science Degree

#### Chemistry Core Curriculum

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I (Lecture).....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

#### 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II (Lecture).....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

#### 3rd Semester

CHEM2261	
Organic Chemistry I (Lecture).....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I (Lecture).....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
Total.....	15

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

#### 4th Semester

	Credits
CHEM2262	
Organic Chemistry II (Lecture).....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
UNIV2002	
Global Issues.....	3
Humanities Course*.....	3
Total.....	15

#### 5th Semester

CHEM3241	
Physical Chemistry I (Lecture).....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
Advanced Mathematics Course**.....	3
Free Elective.....	3
Total.....	14

#### 6th Semester

CHEM3242	
Physical Chemistry II (Lecture).....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
Free Electives.....	6
Science Elective***.....	3
Total.....	14

#### 7th Semester

BIOL4405	
Ethics in Science.....	3
CHEM2211	
Inorganic Chemistry I.....	3
CHEM3231, CHEM3232	
Analytical Chemistry (Lecture and Laboratory).....	4
Social and Behavioral Sciences Elective***.....	3
Science Elective***.....	3
Total.....	16

#### 8th Semester

CHEM4233	
Instrumental Analysis (Lecture).....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4314, CHEM3314	
Inorganic Chemistry II (Lecture and Laboratory).....	3

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

\*\*Selected from MATH2203 Calculus III or MATH2537 Applied Statistics I.

\*\*\*Science Elective: Any upper-level (3000 or 4000) undergraduate or graduate science course or independent study.

\*\*\*\*3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

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	Credits
Speech Course.....	3
Science Elective*.....	3
Total.....	14

## Prepharmacy Program

Fairleigh Dickinson University offers the prerequisite courses for admission to most pharmacy schools. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

### 1st Semester

BIOL1251, BIOL1253	
General Biology I (Lectures and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1205	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

### 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lectures and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

### 3rd Semester

BIOL4405	
Ethics in Science.....	3
CHEM2261	
Organic Chemistry I.....	3
CHEM2265	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2205	
University Physics I (Lecture).....	3

\*Science Elective: Any upper-level (3000 or 4000) undergraduate or graduate science course or independent study.

	Credits
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
Total.....	18

### 4th Semester

CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Speech Course.....	3
Total.....	18

The curriculum outlined above satisfies most of the first two years' requirements for majors in biochemistry and chemistry and also provides a convenient entry to other degree programs in the University. This means that prepharmacy students will have built-in lateral mobility if their interests change. It also provides an alternative to premedical students in a profession that is also oriented to health care.

## B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration. For details see page 235.

## B.S. in Chemistry/M.S. in Cosmetic Science

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in cosmetic science. For details see page 237.

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Civil Engineering Major (B.S.C.E.)

## Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

The Bachelor of Science in Civil Engineering (B.S.C.E.) degree program prepares graduates for entrance into the profession of civil engineering or graduate study. Civil engineering graduates work in the industry as civil engineers, typically specializing as construction, geotechnical, structural or transportation engineers. They also hold other job titles, including field supervisors, project managers, job superintendents, contractors, estimators, safety specialists, schedulers, examiners or surveyors.

As the nation's infrastructure ages, more civil engineers will be needed to supervise projects that maintain, repair, rebuild or upgrade highways, bridges, dams, waste-treatment plants and water systems. Civil engineers are also needed to design and build new houses, buildings, highways and various components of infrastructure as the population continues to grow. Moreover, they will contribute to energy conservation, environmental sustainability and environmental protection by building and maintaining smart green buildings and cities, as well as managing renewable-energy projects, including building structures to support solar arrays and wind turbines in addition to dams and geothermal plants. The civil engineering program and profession will be very attractive to prospective students because of its excellent career opportunities, outstanding average starting salary, excellent median long-term salary, good job-growth projection and great career fulfillment.

The B.S.C.E. curriculum provides students with a varied and balanced educational experience through an appropriate combination of theoretical concepts and practical applications. It also provides them with an engineering-design experience that expands in breadth and depth as they progress through their studies. A stimulating course of study is maintained by offering students a variety of contemporary courses. The engineering laboratory experience is fully integrated with course work. Students work in state-of-the-art laboratories.

The program focuses on three key areas of civil engineering: structural, geotechni-

# Civil Engineering

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cal and environmental engineering. Students will learn to analyze, test and use soils and construction materials; design, build, operate and maintain infrastructure and facilities; estimate construction costs; manage projects; and interpret contracts and specifications. They will also learn to survey lands, plan their usage, protect the environment and utilize energy-saving materials and devices. Students will be able to intern or find employment with construction and engineering companies and government agencies.

The program requires the successful completion of 129 credits:

	Credits
Mathematics and Science Requirements..	32
Liberal Arts Requirements.....	20
Civil Engineering Core Requirements.....	77
Total.....	129

The mathematics and science requirements provide students with the needed foundation in these areas while the liberal arts requirements provide them with a well-rounded education and a strong foundation for thoughtful global citizenship. The Civil Engineering Core Requirements provide students with the comprehensive knowledge, skills and training needed for professional success in the field of civil engineering, bridging the mathematics and basic sciences to engineering sciences, design and applications. Six credits of elective courses in the Civil Engineering Core allow students to further focus on one particular area of civil engineering or to undertake co-operative educational experience to obtain practical work experience.

From the Civil Engineering Core, students learn construction materials and systems, computer-aided drafting, statics, strength of materials, dynamics, fluid mechanics, soil mechanics, foundations and other engineering science courses. They also study surveying, water-resource engineering, environmental and land-use planning, project management, economics and transportation engineering. More importantly, students learn fundamental designs in basic courses, and they advance to analyzing and designing concrete and steel structures in a series of five structure courses. As a culmination of their design experience, senior students are required to successfully design a component, system or a process in the Senior Design Project course, by utilizing their past course work, following professional practice and exercising sound engineering judgment.

## Educational Objectives

The educational objectives of the B.S.C.E. program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S.C.E. program will produce graduates who:

1. Enter into and advance in the profession of civil engineering, particularly in the areas of structural, geotechnical or environmental engineering.

2. Continue their formal education and obtain advanced degrees in civil engineering or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of the program constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Student Outcomes

The B.S.C.E. program has adopted the Student Outcomes of the Engineering Accreditation Commission (EAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each civil engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.

2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.

3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.

4. An ability to communicate effectively with a range of audiences.

5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.

6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.

7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The B.S.C.E. program plans to apply for an accreditation review from the EAC of ABET upon the degree completion of its first graduating class.

## Cooperative Education Option

Students in the B.S.C.E. program have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

## Requirements for the Bachelor of Science Degree

1st Semester	Credits
ENGR1301	
Engineering Practices, Graphics and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	15

# Civil Engineering Technology

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<b>2nd Semester</b>	Credits
ENGR1223	
Introduction to CAD.....	2
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV1002	
Preparing for Professional Life.....	1
Total.....	17

<b>3rd Semester</b>	Credits
CENG1205	
Surveying I.....	3
CENG1245	
Construction Materials and Systems.....	3
CHEM1201	
General Chemistry I.....	3
CHEM1205	
General Chemistry Laboratory I.....	1
ENGR2221	
Statics.....	3
MATH2210	
Differential Equations.....	3
Total.....	16

<b>4th Semester</b>	Credits
ENGR1204	
Programming Languages in Engineering.....	3
ENGR2210	
Technical Communications.....	3
ENGR2228	
Strength of Materials.....	3
ENGR3451	
Dynamics.....	3
MATH3220	
Linear Algebra.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	18

<b>5th Semester</b>	Credits
CENG3250	
Structural Analysis.....	3
CENG3257	
Concrete Structures.....	3
CENG4241	
Soil Mechanics.....	3
ENGR4254	
Fluid Mechanics.....	3
MATH2205	
Calculus III.....	3
Total.....	15

<b>6th Semester</b>	Credits
CENG4242	
Foundations.....	3
CENG4276	
Advanced Concrete Design.....	3
CENG4320	
Transportation Engineering.....	3
ENGR3351	
Applied Thermodynamics.....	3
ENGR4221	
Engineering Statistics and Reliability.....	3
Science Elective*.....	3
Total.....	18

<b>7th Semester</b>	Credits
CENG3256	
Steel Structures.....	3
ENGR4210	
Managerial and Engineering Economic Analysis.....	3
ENGR4263	
Project Management in Engineering and Technology.....	3
UNIV2002	
Global Issues.....	3
Technical Elective**.....	3
Total.....	15

<b>8th Semester</b>	Credits
CENG3260	
Environmental Engineering.....	3
CENG3270	
Environmental and Land-use Planning.....	3
CENG4272	
Advanced Steel Design.....	3
CENG4385	
Senior Design Project.....	3
Technical Elective**.....	3
Total.....	15

\*Science Electives include BIOL1001, BIOL1011 Principles of Modern Biology (Lecture and Laboratory); BIOL1105, BIOL1115 The Human Environment (Lecture and Laboratory); ENVR1001, ENVR1002 Introduction to Environmental Science (Lecture and Laboratory); and ENVR1101, ENVR1102 Physical Geology (Lecture and Laboratory). Other science electives other than chemistry and physics may be taken with prior approval from a program adviser.

\*\*Technical Electives include CENG1206 Surveying II, CENG3261 Estimating I, CENG4260 Contracts and Specifications, CENG4321 Bridge Design, EENG2221 Signals and Systems I, ENGR3211 Engineering Materials I, ENGR4001 FE/EIT Exam Preparation I, ENGR4002 FE/EIT Exam Preparation II, MENG4040 Heating, Ventilation and Air Conditioning and MENG4556 Stress and Vibration Analyses. Other technical electives may be taken with prior approval from a program adviser.

## Civil Engineering Technology Major (B.S.Civ.E.T.)

**Lee Gildart and Oswald Haase**  
**School of Computer Sciences and**  
**Engineering**

See "Engineering Technology Majors,"  
page 162.

# Clinical Laboratory Sciences

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## Clinical Laboratory Sciences Major (B.S.C.L.S.)

### Henry P. Becton School of Nursing and Allied Health

(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP])

Completion of this program will result in a B.S. in Clinical Laboratory Sciences (B.S.C.L.S.) with a concentration in **medical laboratory sciences** awarded jointly by FDU and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 94 credits during their first three years at FDU before applying for acceptance to the professional component at Rutgers SHP.

### Admission Requirements

Admission to the professional component at Rutgers SHP requires:

- A separate application in the fall semester of the student's junior year.
- Admission decisions for the professional component are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status and cannot be guaranteed by FDU.
- Students admitted to the B.S. in Clinical Laboratory Sciences major must maintain a minimum grade point ratio of 2.85 in their preprofessional course work.

Upon successful completion of all course work, graduates will receive a Bachelor of Science in Clinical Laboratory Sciences (B.S.C.L.S.) with eligibility for national certification and state licensure, where applicable.

### Recommended Course Sequence

<i>1st Semester</i>	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
UNIV1001	
Transitioning to University Life.....	1
	Total.....16
<b><i>2nd Semester</i></b>	
BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH1201	
Calculus I.....	4
	Total.....18
<b><i>3rd Semester</i></b>	
BIOL2237, BIOL2239	
Human Structure and Function I (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PSYC1103	
General Psychology.....	3
UNIV1002	
Preparing for Professional Life.....	1
	Total.....13

<i>4th Semester</i>	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PSYC2201	
Statistics.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total.....15

<i>5th Semester</i>	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
CHEM3281	
Biochemistry I.....	3
MEDT1130	
Bioethics.....	3
UNIV2002	
Global Issues.....	3
	Total.....17

<i>6th Semester</i>	Credits
BIOL5306	
Immunology.....	3
MEDT1201	
Introduction to Medical Technology.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3
SPCH1155	
Public Speaking.....	3
	Total.....15

After completion of three years of study (a minimum of 94 credits) at FDU, the program is completed in 12–15 months at the Rutgers School of Health Professions. With successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Clinical Laboratory Sciences (B.S.C.L.S.).

## Requirements for the Bachelor of Science Degree

### Biology Requirements Credits

BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory).....	4
BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....	4
BIOL2210, BIOL2211 Genetics (Lecture and Laboratory).....	4
BIOL2237, BIOL2239 Human Structure and Function I (Lecture and Laboratory).....	4
BIOL3225, BIOL3226 General Microbiology (Lecture and Laboratory).....	4
BIOL4240, BIOL4241 Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL5306 Immunology.....	3
<b>Total.....</b>	<b>27</b>

### Science Requirements

CHEM1201 General Chemistry I.....	3
CHEM1202 General Chemistry II.....	3
CHEM1203 General Chemistry Laboratory I.....	1
CHEM1204 General Chemistry Laboratory II.....	1
CHEM2261 Organic Chemistry I.....	3
CHEM2262 Organic Chemistry II.....	3
CHEM2263 Organic Chemistry Laboratory I.....	2
CHEM2264 Organic Chemistry Laboratory II.....	2
CHEM3281 Biochemistry I.....	3
<b>Total.....</b>	<b>21</b>

### Mathematics and Computing Science Requirements

CSCI1105 Survey of Computers and Computer Software.....	3
MATH1107 Precalculus.....	4
MATH1201 Calculus I.....	4
<b>Total.....</b>	<b>11</b>

## Liberal Arts Requirements

ENWR1001 Composition I: Rhetoric and Inquiry....	3
ENWR1002 Composition II: Research and Argument.....	3
PSYC1103 General Psychology.....	3
PSYC2201 Statistics.....	3
Speech Course.....	3
<b>Total.....</b>	<b>15</b>

## Clinical Laboratory Sciences Requirements

MEDT1130 Bioethics.....	3
MEDT1201 Introduction to Medical Technology.....	3
NURS4420 Health Care Management.....	3
NURS4430 Nursing Research.....	3
<b>Total.....</b>	<b>12</b>

## University Requirements

UNIV1001 Transitioning to University Life.....	1
UNIV1002 Preparing for Professional Life.....	1
UNIV2001 Cross-cultural Perspectives.....	3
UNIV2002 Global Issues.....	3
<b>Total.....</b>	<b>8</b>
<b>Total.....</b>	<b>94</b>

## Clinical Professional Courses (45 credits)

Fifteen months at the Rutgers School of Health Professions (Rutgers SHP).

## Communication Major (B.A.)

### School of Art and Media Studies

The communication program offers a wide range of media-centered courses designed to equip students with the oral, written and technical skills required for careers in such fields as advertising, public relations, print and broadcast journalism, video/media production and writing for both the screen and television. Through the internship program, communication majors gain first-hand experience in their fields. Internships are available in all areas of communication, including print journalism, broadcast journalism, cable and network television, talent representation, advertising and public relations.

### Requirements for the Bachelor of Arts Degree

In addition to the course requirements of the liberal arts core curriculum of University College, students majoring in communication must complete 36 credits, including the following four required 3-credit courses:

COMM1000	Digital Storytelling
COMM2025	Communication Theory
COMM2101	Professional Communication
COMM3101	Investigating Communication: Research Methods
COMM3500	Senior Communication Seminar

In addition, students must select one 3-credit course from each of the four theme groups (theory; writing; advertising/public relations; and broadcast, film and video) and four 3-credit communication electives.

The school offers opportunities for independent study and internships in communication. Program facilities and equipment include:

- FDU's radio station, WFDU-FM (with Pro-Tools)
- FDU's student radio station, WFDU-HD3
- FDU's digital video cameras and production equipment
- FDU's digital nonlinear video editing lab (with Avid)
- The students' award-winning campus newspaper (*The Equinox*)

# Communication

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## Broadcasting Concentration

The concentration in broadcasting is recommended for students who are planning a career in broadcasting.

Students must choose 18 credits from the following 3-credit courses.

COMM2557	Radio Broadcast Workshop
COMM2558	Basic Radio Station Engineering
COMM2648	Basic Video Editing
COMM2659	Broadcast News
COMM2673	Basic Video Production
COMM3295	Theories of the Press
COMM3360	Digital Audio Editing
COMM3558	Advanced Radio Broadcast Workshop
COMM3665	International News: The Views Beyond Our Borders
COMM3668	Television News: The Big Issues
COMM3997	Internship in Communication
COMM4470	The Television Newsroom
COMM4800	Independent Study in Communication

## Convergent Journalism Concentration

The concentration in convergent journalism is designed to provide undergraduate students with basic skills and understanding in the three primary platforms of the modern media industry: print, broadcast and the internet.

Candidates for this concentration must complete the courses required for the major in communication and complete the following:

### Required Courses (6 credits)

COMM/ART1174	Desktop Publishing.....	3
COMM2833	News Reporting.....	3

### Elective Courses (12 credits)

ART1178	Multimedia on the Internet.....	3
COMM/ART1177	Introduction to Digital Media.....	3
COMM2443	Ethics in Media.....	3
COMM2835	Feature Article Writing.....	3

COMM3665	International News: The Views Beyond Our Borders.....	3
COMM3668	Television News: The Big Issues.....	3
COMM3834	Advanced News Reporting.....	3
COMM4470	The Television Newsroom.....	3

## Radio Management Concentration

The concentration in radio management is designed to provide undergraduate students with the experience necessary to assume managerial careers in the radio industry.

Candidates for this concentration must complete the courses required for the major in communication and include the following courses:

COMM2321	Advertising Principles
COMM2557	Radio Broadcast Workshop
COMM2558	Basic Radio Station Engineering
COMM3360	Digital Audio Editing
COMM3558	Advanced Radio Broadcast Workshop
COMM3997	Internship in Communication

Students are strongly encouraged to complete the secondary area of concentration in business administration for non-College of Business students listed under the Silberman College of Business section.

## TV/Digital Editing and Production Concentration

The concentration in TV/digital editing and production is designed to provide undergraduate students with the professional experience and hands-on training for careers in the video/broadcast and cable workplace.

The following courses must be taken for the 18-credit concentration.

COMM2648	Basic Video Editing
COMM2673	Basic Video Production
COMM3675	Advanced Video Production
COMM3749	Advanced Video Editing
COMM4470	The Television Newsroom
COMM4800	Independent Study in Communication

Credits

## Advertising Minor

(For Non-Communication Majors)

The following courses must be taken for the 15-credit minor.

COMM2321	Advertising Principles.....	3
COMM3345	Advertising Copywriting and Layout or	
COMM3362	Advertising Campaigns.....	3
COMM3444	Public Relations.....	3
COMM3997	Internship in Communication or	
MKTG2120	Advertising/Public Relations Elective.....	3
	Principles of Marketing.....	3

## Communication Minor

(For Non-Communication Majors)

Non-communication majors interested in a secondary area of specialization in communication must complete 15 credits of communication courses including:

COMM	Theory Group Elective.....	3
COMM	Advertising/Public Relations Elective....	3
COMM	Broadcast, Film and Video Group Elective.....	3
COMM	Communication Group Elective.....	3
SPCH	Speech Group Elective.....	3

Interested students should consult with the school director for further information.

## Convergent Journalism Minor

The minor in convergent journalism is designed to provide undergraduate students with the requisite skills for today's media marketplace. This 15-credit minor builds on a foundation of basic skills in the three primary platforms of the modern media industry — print, broadcast and the internet — and offers a range of free electives that allows the students to further explore areas of specific interest.



## Required Courses (9 credits)

	Credits
COMM1174/ART1174 Desktop Publishing.....	3
COMM1177/ART1177 Introduction to Digital Media.....	3
COMM2833 News Reporting.....	3

## Elective Courses (6 credits)

Choose one course from the following

ART1178 Multimedia on the Internet.....	3
COMM2558 Basic Radio Station Engineering.....	3
COMM2648 Basic Video Editing.....	3
COMM2835 Feature Article Writing.....	3

Choose one course from the following

COMM3665 International News: The Views Beyond Our Borders.....	3
COMM3668 Television News: The Big Issues.....	3
COMM3834 Advanced News Reporting.....	3
COMM4470 The Television Newsroom.....	3

## Speech Minor

The minor in speech offers students interested in improving their oral communication skills to choose from a wide range of offerings — from courses in articulation and diction to those requiring the use of audiovisual aids for professional presentations. The minor would be especially useful for students planning careers in which effective oral communication is essential, such as law, teaching, broadcasting, the performing arts, hotel management, tourism, advertising and public relations. For international students it would be an ideal minor, since it would enable them to enhance their speaking facility.

Students interested in this minor must complete 15 credits from the following 3-credit courses:

COMM1106	Interpersonal Communication
COMM2557	Radio Broadcast Workshop
SPCH1105	Voice Production and Articulation
SPCH1155	Public Speaking

SPCH2153	Speech and Voice Improvement
SPCH2217	Speech for Broadcasters
SPCH2318	Oral Presentations
SPCH2351	Persuasive Speaking
SPCH2353	Speech: Small-group Discussion
SPCH4430	Selected Studies in Speech
THEA2205	Acting: Theory and Practice I

## Sports Media Studies Minor

Students must complete 15 credits from the courses listed below with no more than three courses from one discipline. Appropriate courses used to fulfill the minor for sports media studies are as follows:

COMM2415	Sports and Popular Culture
COMM2743	Special Topics: Sports in American Cinema
COMM3431	Sports Information Writing
COMM3432	Sports in Society
COMM4930	Selected Studies: Sports Ethics
COMM4933	Selected Studies: Leadership, Communication and Sport
HIST2102	Sports in America
PHED2422	Health and Nutrition
PHED4460	National Coaching Certification*
PSYC3359	Sport Psychology
SPCH4430	Selected Studies: Sportscasting

# Computer Science Major (B.S.)

**Lee Gildart and Oswald Haase**  
**School of Computer Sciences and Engineering**

The Bachelor of Science degree program in computer science provides a theoretically based education in computer science, coupled with real-world applications. Students are exposed to a broad range of fundamental concepts in such areas as software engineering, computer organization, database systems, management information systems and operating systems, as well as to a wide variety of computer applications. The computer science core requirements are supplemented by four highly in-demand concentrations: **cybersecurity and information assurance, database management, game and mobile application development and information security administration**. Students must complete two of the four concentrations. The program requires the successful completion of at least 120 credits of course work.

Graduates of the program, many of whom enter the industry, are prepared to function well in most computing environments. They are familiar with a spectrum of fundamental principles and have been encouraged to approach problems with creativity.

This program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>, 415 North Charles Street, Baltimore, Maryland 21201, telephone (410) 347-7700. This accreditation applies only to the Bachelor of Science in computer science program offered by University College at the Metropolitan Campus, Teaneck, New Jersey.

Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and two units of science.

## Educational Objectives

The educational objectives of the B.S. in computer science program define the career and professional accomplishments that the graduates are being prepared to

\* Course offered through Maxwell Becton College of Arts and Sciences.

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achieve three to four years after graduation. The program will produce graduates who:

1. Utilize a varied and balanced educational experience with an appropriate combination of theoretical knowledge and practical skills that enable entrance into and advancement in the profession of computer science.

2. Build on educational knowledge and experience to continue formal education and obtain advanced degrees in the fields of computer science, management information systems, business administration or computer engineering.

3. Continue to develop as responsible professionals and global citizens who are mindful of ethical issues, societal needs and problems inherent in the computing field.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituents, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Student Outcomes

Each computer science graduate will demonstrate the following attributes and achievements as required by the Computing Accreditation Commission of ABET by the time of graduation:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

3. Communicate effectively in a variety of professional contexts.

4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

## Requirements for the Bachelor of Science Degree

### Computer Science Core Requirements

	Credits
CSCI1201	
Computer Programming I.....	3
CSCI1202	
Computer Programming II.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2232	
Data Structures.....	3
CSCI2247	
Assembly Language Programming.....	3
CSCI3240	
Computer Networks.....	3
CSCI3249	
Computer Organization.....	3
CSCI3251	
Design of Software Systems.....	3
CSCI3255	
Mathematical Foundations of Computer Science.....	3
CSCI3268	
Database Systems.....	3
CSCI3278	
Operating Systems.....	3
ENGR2286	
Digital System Design.....	3
	Total.....36

### Mathematics Requirements

MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH2255	
Discrete Structures.....	3
MATH3220	
Linear Algebra.....	3
MATH3237	
Probability and Statistics I.....	3
	Total.....17

### Science Requirements

Two full-year sequences with laboratories totaling 16 credits or more to be chosen from:

BIOL1251, BIOL1252	
General Biology I, II.....	6
BIOL1253, BIOL1254	
Laboratory: General Biology I, II.....	2
CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2

	Credits
PHYS2203, PHYS2204	
University Physics I, II.....	6
PHYS2201, PHYS2202	
Physics Laboratory I, II.....	2
	Total.....16

### Humanities Requirements

ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and Argument.....	3
ENGR2210	
Technical Communications.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
Elective.....	3
	Total.....23

### Concentration Requirements..... 18

Students must complete any two of the four concentrations offered: cybersecurity and information assurance, database management, game and mobile application development and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are to be taken as prescribed under the specific concentrations: cybersecurity and information assurance concentration, see page 155; database management concentration, see page 155; game and mobile application development concentration, see pages 155–156; and information security administration concentration, see page 156.

### Free Electives\*..... 10

\* Mathematics courses below MATH1201 Calculus I may not be used as free electives.

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With the approval of their adviser, upper-division students may use the following graduate courses as substitutes for their undergraduate counterparts: CSCI6603 Computer Architecture for CSCI3249 Computer Organization, CSCI6625 Database Systems for CSCI3268 Database Systems or CSCI6638 Operating Systems for CSCI3278 Operating Systems.

## Sample Course Sequence

<b>1st Semester</b>	Credits
CSCI1201	
Computer Programming I.....	3
ENGR2286	
Digital System Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	14
<b>2nd Semester</b>	
CSCI1202	
Computer Programming II.....	3
CSCI2215	
Introduction to Computer Science.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	14
<b>3rd Semester</b>	
CSCI2232	
Data Structures.....	3
CSCI2247	
Assembly Language Programming.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Science Elective and Laboratory.....	4
Free Elective.....	1
Total.....	14
<b>4th Semester</b>	
CSCI3251	
Design of Software Systems.....	3
CSCI3268	
Database Systems.....	3
MATH3237	
Probability and Statistics I.....	3
UNIV2002	
Global Issues.....	3
Science Elective and Laboratory.....	4
Total.....	16

<b>5th Semester</b>	Credits
CSCI3240	
Computer Networks.....	3
MATH2255	
Discrete Structures.....	3
Concentration Courses.....	6
Free Elective.....	3
Total.....	15

<b>6th Semester</b>	Credits
CSCI3255	
Mathematical Foundations of Computer Science.....	3
CSCI3278	
Operating Systems.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
Concentration Course.....	3
Humanities Elective.....	3
Total.....	15

<b>7th Semester</b>	Credits
CSCI3249	
Computer Organization.....	3
ENGR2210	
Technical Communications.....	3
MATH3220	
Linear Algebra.....	3
Concentration Course.....	3
Science Elective and Laboratory.....	4
Total.....	16

<b>8th Semester</b>	Credits
Concentration Courses.....	6
Free Electives.....	6
Science Elective and Laboratory.....	4
Total.....	16

## Concentrations

Students must complete any two of the following concentrations: cybersecurity and information assurance, database management, game and mobile application development and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are to be taken as prescribed on this page and page 156.

## Cybersecurity and Information Assurance Concentration

### Required Courses (18 credits)

	Credits
CSCI2215	
Introduction to Computer Science*.....	3
CSCI3240	
Computer Networks*.....	3
CSCI3278	
Operating Systems*.....	3
CSCI3345	
Firewalls and Intrusion Detection Systems.....	3
CSCI3410	
Foundations of Cybersecurity.....	3
CSCI3420	
Cryptography.....	3

## Database Management Concentration

### Required Courses (9 credits)

CSCI2215	
Introduction to Computer Science*.....	3
CSCI2232	
Data Structures*.....	3
CSCI3268	
Database Systems*.....	3

### Electives (9 credits)

Select three from the following courses:

CSCI3331	
Advanced Database.....	3
CSCI3460	
Data Warehouse and Data Mining.....	3
CSCI3470	
Enterprise Computing for the IBM zSeries.....	3
CSCI4373	
Distributed Database Systems.....	3

## Game and Mobile Application Development Concentration

### Required Courses (15 credits)

CSCI2215	
Introduction to Computer Science*.....	3
CSCI2232	
Data Structures*.....	3

\*These courses are already included in the computer science core requirements.

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	Credits
CSCI3251	
Design of Software Systems*.....	3
CSCI3314	
Mobile Application Development.....	3
CSCI3317	
Computer Game Programming.....	3

## Elective (3 credits)

Select one from the following courses:

CSCI3380	
UNIX Shell Programming.....	3
CSCI3444	
Programming for the Internet.....	3
CSCI4380	
Systems Development with Java.....	3

Students pursuing this concentration are recommended to take three computer animation courses from the School of Art and Media Studies as free electives in the B.S. in computer science curriculum.

## Information Security Administration Concentration

### Required Courses (18 credits)

CSCI2215	
Introduction to Computer Science*.....	3
CSCI2232	
Data Structures*.....	3
CSCI2235	
Survey of Computing Security.....	3
CSCI3268	
Database Systems*.....	3
CSCI3274	
Linux System Administration.....	3
CSCI3783	
Information Security.....	3

## Computer Science Minor

(For Non-Computer Science Majors)

The minor in computer science consists of 15 credits and is available to qualified students. This minor provides students with a basic foundation in computer science that complements their majors and enhances their employment opportunities and career options. The problem-solving and critical-thinking skills acquired through this minor are essential skills needed to be successful in life and in the workplace. The courses for a minor in computer science within University College are as follows:

### Required Courses (9 credits)

	Credits
CSCI1201	
Computer Programming I.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI3268	
Database Systems.....	3

### Electives\* (6 credits)

Two courses must be chosen from the following:

CSCI1202	
Computer Programming II.....	3
CSCI2232	
Data Structures.....	3
CSCI2247	
Assembly Language Programming.....	3
CSCI3240	
Computer Networks.....	3
CSCI3249	
Computer Organization.....	3
CSCI3278	
Operating Systems.....	3
ENGR2286	
Digital System Design.....	3
MATH2255	
Discrete Structures.....	3

To take any course in the minor, a student must meet all the prerequisites for that course.

## B.S./M.S. in Computer Science Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in computer science with a combined course load of 141 credits, which is 9 credits less than that for the separate degrees.

Students are eligible to apply for the combined B.S./M.S. degree program after completing 60 undergraduate credits and achieving a grade point ratio (GPR) of 3.00 or better in the first 15 credits of the computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degree, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate computer science program. See page 238 for details.

*\*With the approval of the academic adviser, students may take other higher-level CSCI courses as electives. Students intending to pursue an M.S. in computer science or an M.S. in management information systems must see an adviser for the proper selection of electives*

## B.S. in Computer Science/ M.S. in Management Information Systems Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in management information systems (MIS) with a combined course load of 141 credits, which is 9 credits less than that for the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and achieving a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate MIS program. See page 239 for details.

\*These courses are already included in the computer science core requirements.

## Construction Engineering Technology Major (B.S.Con.E.T.)

Lee Gildart and Oswald Haase  
School of Computer Sciences and Engineering

See “Engineering Technology Majors,” page 162.

## Criminal Justice Major (B.A.)

*School of Criminal Justice, Political Science and International Studies*

The Bachelor of Arts degree in criminal justice skillfully integrates theory and application into a holistic and interdisciplinary course of study that prepares its graduates for wide-ranging career opportunities upon graduation. Its interdisciplinary curriculum is specially designed to help prepare its graduates for the complex and dynamic challenges of the country’s legal and criminal justice system and the field of private security administration. As part of its curricular design, the program prepares graduates for:

- Entry-level positions within all levels of the United States criminal justice system,
- Graduate studies, law school and other professional and advanced degree programs,
- Diverse career opportunities in professional private security administration and
- Enhancing the careers of practicing professionals within the field of criminal justice, private security and other governmental and nonprofit organizations.

Incorporated within and outside of the classroom, Fairleigh Dickinson University’s distinguished faculty skillfully integrate theory and academic constructs in direct relationship with the legal and operational realities that influence and shape the ever-changing nature and composite of the United States criminal justice system.

Given the challenges and demands of an ever-changing society, the curriculum is by design — holistic, engaging and highly interactive — one that integrates and develops independent and collaborative research skills, critical thinking, problem-solving and effective communication skills.

The curriculum is fundamentally interdisciplinary and closely examines: the nature and incidence of crime; law; theories of criminality and punishment; the interdependent operation of the criminal justice system, involving the police and law enforcement, the courts and adjudication process and corrections; organizational and personnel management theories relevant to criminal justice management and administration; the use and application of

the state-of-the art computer technologies; forensic psychology; the forensic sciences; and the impact of major social problems on crime and the criminal justice system.

Opportunities for students to gain practical experience in various criminal justice agencies are available through the school’s internship program (CRIM3303 Criminal Justice Internship).

For more information, contact Dr. Samuel Raphaelides, director of the School of Criminal Justice, Political Science and International Studies, University College: Arts • Sciences • Professional Studies, Fairleigh Dickinson University, 1000 River Road, T-RA2-01, Teaneck, New Jersey 07666; telephone: (201) 692-2465/2413; fax (201) 692-2578; email: samuel\_j\_raphaelides@fd.edu.

### Requirements for the Bachelor of Arts Degree

Students enrolled in the Bachelor of Arts in criminal justice program must complete a total of 120 credits, which include 47 credits of required core curriculum, 33 credits of required courses in criminal justice, 12 credits of criminal justice electives, 13 credits of free elective courses and 15 credits in a minor.

Course selections for the program meet the Minimum Standards for Criminal Justice Programs adopted by the Northeastern Association of Criminal Justice Sciences. Students must maintain a minimum grade point ratio of at least 2.50 in the major after the first 12 credits.

### Major Required Courses (33 credits)

	Credits
CRIM1101	
Introduction to Criminal Justice.....	3
CRIM1102	
Criminology and Social Theory.....	3
CRIM1103	
Criminal Law.....	3
CRIM2100	
Professional and Legal Writing.....	3
CRIM2201	
Police and Society.....	3
CRIM2202	
Corrections, Parole and Probation.....	3
CRIM2204	
Juvenile Justice and Delinquency.....	3
CRIM2205	
Criminal Justice Research Methods.....	3
CRIM2208	
Victimology.....	3

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	Credits
CRIM3319	
Courts and Judicial Process.....	3
CRIM4405	
Criminal Justice Capstone Seminar.....	3
	Total.....33

## **Criminal Justice and Legal Studies Elective Courses (12 credits)**

To be selected from the following:

CRIM1112	
Minorities, Women and the Criminal Justice System.....	3
CRIM1120	
Introduction to Jurisprudence.....	3
CRIM1700	
Introduction to Security Operations.....	3
CRIM2206	
Criminal Investigation.....	3
CRIM2207	
Community Policing.....	3
CRIM2211	
School and Workplace Violence.....	3
CRIM2212	
Terrorism, Intelligence and Justice.....	3
CRIM2214	
Criminal Procedure Law.....	3
CRIM2215	
Crime and Forensics.....	3
CRIM2216	
Sex, Deviance and the Law.....	3
CRIM2230	
The Death Penalty.....	3
CRIM2231	
The Art and Science of Homicide Investigation.....	3
CRIM2235	
Cyber Crime.....	3
CRIM2240	
Criminal Profiling.....	3
CRIM2250	
Emerging Issues in Crime and Justice....	3
CRIM2700	
Security Investigations and Case Management.....	3
CRIM3301	
Computer Technology in the Criminal Justice System.....	3
CRIM3302	
Criminal Justice Management and Administration.....	3
CRIM3303	
Criminal Justice Internship.....	3
CRIM3304	
Criminal Justice Ethics.....	3
CRIM3305	
Interviewing and Interrogation.....	3
CRIM3306	
White-collar Crime.....	3

	Credits
CRIM3307	
Domestic Violence.....	3
CRIM3308	
The Politics of Crime.....	3
CRIM3309	
Introduction to Homeland Security.....	3
CRIM3310	
Criminal Justice Professional Lecture Series.....	3
CRIM3311	
Organized Crime.....	3
CRIM3312	
Comparative Criminal Justice Systems: United States and Great Britain.....	3
CRIM3313	
Analysis of Serial Killers.....	3
CRIM3314	
Comparative International Criminal Justice Systems.....	3
CRIM3315	
Advanced Internship.....	3
CRIM3316	
Global Terrorism.....	3
CRIM3317	
Fraud Investigation.....	3
CRIM3320	
Interviewing and Counseling Strategies.....	3
CRIM3321	
Drugs, Addictions and the Law.....	3
CRIM3322	
Negotiation and Conflict Management...	3
CRIM3324	
Community Resource Management.....	3
CRIM3325	
Traumatic Injuries and Death Investigation.....	3
CRIM3326	
Rehabilitative Strategies.....	3
CRIM3330	
Dynamics of Leadership.....	3
CRIM3700	
Asset Protection, Vulnerabilities and Technologies.....	3
CRIM3890	
Legal and Analytical Reasoning.....	3
CRIM4430	
Selected Studies in Criminal Justice and Legal Studies.....	1–3
CRIM4700	
Security and Personnel Management and Administration.....	3
CRIM4800	
Independent Study.....	1–3

## **Computer Forensics Minor**

The computer forensics minor involves the identification, preservation, extraction, interpretation and documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. This 15-credit minor will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

### **Required Courses (12 credits)**

	Credits
CRIM2218	
Computer Technologies and Cyber Crime.....	3
CRIM3327	
File System Forensic Analysis and Investigation.....	3
INFO1101	
Computer Concepts and Technology....	3
INFO4101	
Data Communications and Computer Networks I.....	3

### **Elective (3 credits)**

CRIM4010	
Computer Forensic, Software and Hardware Applications or	
INFO4410	
Foundations of Cybersecurity.....	3

## **Criminal Justice Minor**

(For Non-Criminal Justice Majors)

### **Requirements (15 credits)**

Non-criminal justice majors may complete a minor in criminal justice by completing the following 15 credits:

CRIM1101	
Introduction to Criminal Justice.....	3
CRIM1102	
Criminology and Social Theory.....	3
CRIM2201	
Police and Society.....	3
CRIM2202	
Corrections, Parole and Probation.....	3
CRIM3319	
Courts and Judicial Process.....	3

## Legal Studies Minor

The School of Criminal Justice, Political Science and International Studies offers a course of study for students who are interested in the field of jurisprudence and the legal profession. The legal studies program critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. The minor offers students a selection of specifically designed courses, academic advisement, testing strategies and preparation and support services designed to assist students who anticipate applying to law school or graduate school. The program places a strong emphasis on the importance of the undergraduate student's course of study, grade point ratio (GPR) and performance on the Law School Admission Test (LSAT) — all of which play important factors for acceptance to law school. Emphasis is placed on reading comprehension, writing, critical thinking, deduction and analytical reasoning. The course CRIM3890 Legal and Analytical Reasoning places emphasis on these skill sets, which also provides students the opportunity to take practice LSAT exams.

The legal studies minor requires the student to successfully complete 15 credits of the following courses:

	Credits
CRIM1120	
Introduction to Jurisprudence.....	3
CRIM3319	
Courts and Judicial Process.....	3
CRIM3890	
Legal and Analytical Reasoning.....	3
POLS2253	
American Government.....	3
POLS3355	
American Constitutional Law I.....	3
Substitutions are permitted upon approval of the school director.	

## Social Justice Advocacy Minor

One of the most important tasks in the criminal justice system is concerned with ensuring that clients and offenders are able to identify and receive necessary services. At various points in their official duties, police officers, probation officers, children's services workers, social workers and victim advocates are all faced with the responsibility to make the connection between people in need and community services.

This minor is designed to provide students interested in the helping aspects of the criminal justice system to obtain the tools for doing the job of helping, reintegrating and rehabilitating victims, offenders, releasees and other people who might otherwise be left behind. The minor may be aimed towards specific career goals in community corrections, children's services, victim advocacy or a more general social-work orientation.

### Required Courses (6 credits)

	Credits
CRIM1125	
Introduction to Social Service Advocacy.....	3
SOCI3316	
The Family: Stability and Dysfunction...	3

### Students may select any three courses (9 credits)

CRIM1130	
Working with Children and Families.....	3
CRIM1135	
Social Justice and Structural Inequality...	3
CRIM2208	
Victimology.....	3
CRIM3320	
Interviewing and Counseling Strategies.....	3
CRIM3324	
Community Resource Management.....	3
CRIM3326	
Rehabilitative Strategies.....	3
SOCI2805	
Contemporary Social Issues.....	3
SOCI3201	
Methods in Social Research.....	3
SOCI3318	
Health and Society: Access and Issues...	3
SOCI3320	
Race, Generation and Immigration.....	3

### B.A./M.A. in Criminal Justice

The University offers students the opportunity to earn a combined Bachelor of Arts in criminal justice and a Master of Arts in criminal justice. It is recommended that the students interested in the combined degree program declare their candidacy upon successful completion of 64 credits and/or upon entering their junior year; however, no later than having completed 90 undergraduate credits. This affords students the opportunity to collaborate with their adviser in the timely and appropriate selection of undergraduate courses. See page 215 for details.

### B.A. in Political Science/ M.A. in Criminal Justice

The University offers a combined degree program to earn a Bachelor of Arts in political science and a Master of Arts in criminal justice. Students must declare their candidacy upon entering their junior year and/or upon successful completion of 64 credits, but no later than the completion of 90 undergraduate credits. Students who are considering this program should meet with their advisers to discuss their options and correctly select the appropriate courses. See page 218 for details.

# Electrical Engineering

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## Electrical Engineering Major (B.S.E.E.)

*Lee Gildart and Oswald Haase  
School of Computer Sciences and Engineering*

The Bachelor of Science in Electrical Engineering degree curriculum prepares graduates for entrance into the profession of electrical engineering by providing them a varied and balanced educational experience with an appropriate combination of theoretical concepts and practical applications. A stimulating course of study is maintained by offering students a reasonable variety of required contemporary courses and electives. The engineering laboratory experience is fully integrated with course work.

### Educational Objectives

The educational objectives of the Bachelor of Science in Electrical Engineering program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The Bachelor of Science in Electrical Engineering program will produce graduates who:

1. Enter into and advance in the profession of electrical engineering, particularly in the areas of systems and devices, computers and communications.

2. Continue their formal education and obtain advanced degrees in electrical engineering or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituents, which include students, alumni, employers, faculty and the Industrial Advisory Board.

### Student Outcomes

Each electrical engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.

2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.

3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.

4. An ability to communicate effectively with a range of audiences.

5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.

6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.

7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The curriculum provides students with an engineering design experience that expands in breadth and depth as they progress through their studies. This experience is introduced early in the curriculum. Simple design examples are presented in ENGR1301 Engineering Practices, Graphics and Design. Students begin to learn basic AC and DC circuits, operational amplifiers, three-phase circuits, two-port networks, filters and system analysis in a three-course sequence in circuit theory and systems. This allows them to design complex linear and nonlinear analog electronic circuits and devices in a three-course sequence in electronics. Students also design digital systems involving logic gates, counters, shift registers, multiplexers, demultiplexers, encoders and decoders and advance to the design of microprocessor- and microcontroller-embedded systems in a three-course sequence in digital logic and system design. The design of digital filters is conducted in EENG5224 Digital Signal Processing.

Substantial engineering design experience is obtained from the integrated laboratory experience throughout the curriculum. Advanced courses help students acquire experimental, design and computer simulation skills and integrate theory with practice.

As a culmination of their design experience, senior students are required to successfully design a component or system in the EENG4268 Electrical Engineering Project by utilizing their past course work, by following professional practice and by exercising sound engineering judgment.

Because of the importance of modern telecommunications and control technology, courses in communication systems, data communications and computer networks, wireless communications and control are required. Course work in computer hardware and software has been expanded.

Electives allow the student to develop design skills in various technical areas. Students follow a curriculum that is tailored to their professional interests in consultation with the electrical engineering faculty.

The B.S. in Electrical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>, 415 North Charles Street, Baltimore, Maryland 21201; telephone: (410) 347-7700.

### Cooperative Education Option

Students in the B.S.E.E. program have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences, and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

### Requirements for the Bachelor of Science in Electrical Engineering Degree

First Year	Credits
<b>1st Semester</b>	
ENGR1301	
Engineering Practices, Graphics and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3



# Electrical Engineering

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	Credits
MATH1201	
Calculus I.....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV1001	
Transitioning to University Life.....	1
	Total..... 15

## 2nd Semester

ENGR1204	
Programming Languages in Engineering.....	3
ENGR2286	
Digital System Design.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV1002	
Preparing for Professional Life.....	1
	Total..... 18

## Second Year

### 3rd Semester

EENG2221	
Signals and Systems I.....	4
EENG2287	
Microprocessor System Design I.....	3
ENGR3200	
Advanced Engineering Programming.....	3
MATH2210	
Differential Equations.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total..... 16

### 4th Semester

EENG2222	
Signals and Systems II.....	3
EENG3288	
Microprocessor System Design II.....	3
ENGR2210	
Technical Communications.....	3
ENGR4221	
Engineering Statistics and Reliability.....	3
UNIV2002	
Global Issues.....	3
	Total..... 15

## Third Year

### 5th Semester

	Credits
EENG3223	
Linear Systems.....	3
EENG3265	
Electronics I.....	3
EENG4375	
Electrical Energy Conversion.....	3
ENGR2221	
Statics.....	3
MATH2203	
Calculus III.....	3
	Total..... 15

### 6th Semester

CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
EENG3224	
Digital Signal Processing.....	3
EENG3266	
Electronics II.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENGR3541	
Advanced Engineering Mathematics.....	3
	Total..... 16

## Fourth Year

### 7th Semester

EENG3244	
Electromagnetic Fields and Waves.....	3
EENG3267	
Electronics III.....	3
EENG4260	
Preparation for Electrical Engineering Project.....	1
EENG4342	
Data Communications and Computer Networks.....	3
EENG4355	
Analog and Digital Control.....	3
ENGR4210	
Managerial and Engineering Economic Analysis.....	3
	Total..... 16

### 8th Semester

EENG4268	
Electrical Engineering Project.....	2
EENG4341	
Communication Systems.....	3
EENG4347	
Wireless Communication.....	3
Technical Electives*.....	9
	Total..... 17

\*Electives to be taken with approval of the faculty adviser.

## Electrical Engineering Minor

(For Non-Electrical Engineering Majors)

The minor in electrical engineering consists of 16 credits, and it is relevant to students with appropriate mathematics and science backgrounds. This minor provides students in other fields of study with a basic foundation in electrical engineering, and it can bring them additional employment opportunities and career options. The courses for a minor in electrical engineering within University College are as follows:

### Required Courses (16 credits)

	Credits
EENG2221	
Signals and Systems I.....	4
EENG2222	
Signals and Systems II.....	3
EENG2287	
Microprocessor System Design I.....	3
EENG3265	
Electronics I.....	3
ENGR2286	
Digital System Design.....	3

To take any course in the minor, a student must meet all the prerequisites for that course.

## B.S.E.E./M.S. in Computer Engineering Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science (M.S.) degree in computer engineering with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 2.75. See page 240 for details.

## B.S.E.E./M.S.E.E. Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science in Electrical Engineering (M.S.E.E.) with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 2.75. See page 241 for details.

# Electrical Engineering Technology • Engineering Tech.

University College: Arts • Sciences • Professional Studies  
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## Electrical Engineering Technology Major (B.S.E.E.T.)

*Lee Gildart and Oswald Haase  
School of Computer Sciences and Engineering*

See "Engineering Technology Majors," this page.

## Engineering Technology Majors

*Lee Gildart and Oswald Haase  
School of Computer Sciences and Engineering*

### *Civil Engineering Technology (B.S.Civ.E.T.)*

Program Co-Coordinators:  
Vahid Alizadeh, Ph.D.  
Marzieh Azarderakhsh, Ph.D.

### *Construction Engineering Technology (B.S.Con.E.T.)*

Program Co-Coordinators:  
Vahid Alizadeh, Ph.D.  
Marzieh Azarderakhsh, Ph.D.

### *Electrical Engineering Technology (B.S.E.E.T.)*

Program Coordinator:  
Sameh Abdelazim, Ph.D.

### *Mechanical Engineering Technology (B.S.M.E.T.)*

Program Coordinator:  
Bernard Lefkowitz, Ph.D.

### **Engineering Technology (Bachelor of Science Degree) Programs**

The Bachelor of Science degree programs in civil engineering technology, construction engineering technology, electrical engineering technology and mechanical engineering technology are designed to serve the needs of students and industry. These curricula consist of an integrated sequence of undergraduate courses emphasizing the application of engineering and scientific knowledge, methods, technology and technical skills appropriate to each discipline.

These four Bachelor of Science degree programs also provide an opportunity to graduates of two-year programs in technology with an A.A.S. or the equivalent in the appropriate discipline to continue their studies.

Transfer credits for associate degree programs will be evaluated independently for each applicant.

Prerequisites: three units of college preparatory mathematics (including algebra, trigonometry and plane geometry) and two units of a laboratory science.

### **Professional Accreditation**

The Bachelor of Science programs in civil engineering technology, construction engineering technology, electrical engineering technology and mechanical engineering technology are accredited by the Engineering Technology Accreditation Commission of ABET, <http://www/abet.org>, 415 North Charles Street, Baltimore, Maryland 21201; telephone: (410) 347-7700.

### **Engineering Technology Majors**

The engineering technology curricula have been designed to educate and train individuals for industrial positions requiring a sophisticated, but applied technical orientation. Graduates will be capable of solving design and applied engineering problems, as well as performing managerial, business and sales functions.

These baccalaureate degree programs are offered by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering in University College, full and part time, and on a day and evening basis.

Students must consult with their advisers every semester prior to registration. Most offerings have specific courses as prerequisites or corequisites. Students should ensure that these requirements are met before completing a registration for a given semester.

The engineering technology faculty maintain excellent communication with industry and encourage students to gain industrial experience. Laboratory and industrial-oriented project assignments complement the lectures and recitations throughout the program to provide those learning opportunities necessary for the contemporary engineering technologist. A capstone project based on an approved written proposal is required in the eighth semester for all students in all programs. A cooperative education option is available.

### **Technical Electives**

The only technical electives accepted to the engineering technology programs are those offered by University College. The technical elective must be either a junior or senior course, recommended by the student's adviser and approved by the coordinator of engineering technology programs. It is the student's responsibility to meet the technical elective's co- and prerequisites.

# Engineering Technology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Work Experience

Up to 6 credits may be earned for appropriate documented industrial experience and used in lieu of technical electives. Industrial experience may not be substituted for any required course work.

Students must have successfully completed the course EGTG2210 Technical Communications before the application for "Work Experience" credits can be considered. The application form and directions for submission of necessary documents in support of the application may be obtained from the engineering technology office.

## Cooperative Education Option

Students in the four B.S. programs in engineering technology have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences, and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared graduates with real and relevant work experience, saving time and money by reducing the training period for new employees.

## Civil Engineering Technology (B.S.Civ.E.T.) Program

Program Co-Coordinators: Vahid Alizadeh, Ph.D., and Marzieh Azarderakhsh, Ph.D. The Bachelor of Science in Civil Engineering Technology program prepares students in planning, designing and building infrastructure and facilities. Civil engineering technologists work in areas such as transportation, water systems, utilities, structures, pollution control, surveying, soil mechanics and foundations.

## Educational Objectives

The educational objectives of the B.S. in Civil Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Civil Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the planning, design, construction, operation or maintenance of buildings and infrastructures utilizing their theoretical knowledge and practical skills in analyzing and designing systems or structures, specifying construction methods and materials, performing cost estimates and analyses and inspecting and managing civil projects.

2. Continue their formal education and obtain advanced degrees such as M.S. in construction management, M.B.A. (industrial management), M.S. in environmental studies, M.S. in technology management or other related fields.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Requirements for the Bachelor of Science in Civil Engineering Technology Degree (B.S.Civ.E.T.)

1st Semester	Credits
ENGR1301 Engineering Practices, Graphics and Design.....	3
ENWR1001 Composition I: Rhetoric and Inquiry....	3
MATH1107 Precalculus.....	4
PHYS2101 General Physics I.....	3
PHYS2201 Physics Laboratory I.....	1
UNIV1001 Transitioning to University Life.....	1
	Total..... 15
<b>2nd Semester</b>	
EGTC1223 Introduction to CAD.....	2
ENGR3000 Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1002 Composition II: Research and Argument.....	3
MATH1201 Calculus I.....	4

	Credits
PHYS2102 General Physics II.....	3
PHYS2202 Physics Laboratory II.....	1
UNIV1002 Preparing for Professional Life.....	1
	Total..... 17

## 3rd Semester

CHEM1201 General Chemistry I.....	3
CHEM1203 General Chemistry Laboratory I.....	1
EGTC1205 Surveying I.....	3
EGTC1245 Construction Materials and Systems.....	3
EGTG2221 Statics.....	3
MATH2202 Calculus II.....	4
	Total..... 17

## 4th Semester

EGTC1206 Surveying II.....	3
EGTG2210 Technical Communications.....	3
EGTG2228 Strength of Materials.....	3
EGTG4221 Engineering Statistics and Reliability.....	3
ENGR1204 Programming Languages in Engineering.....	3
UNIV2001 Cross-cultural Perspectives.....	3
	Total..... 18

## 5th Semester

EGTC3250 Structural Analysis.....	3
EGTC3257 Concrete Structures.....	3
EGTC3261 Estimating I.....	3
EGTC4241 Soil Mechanics.....	3
EGTG4254 Fluid Mechanics.....	3
	Total..... 15

## 6th Semester

EGTC4242 Foundations.....	3
EGTC4276 Advanced Concrete Design.....	3
EGTG3351 Applied Thermodynamics.....	3

# Engineering Technology

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	Credits
EGTG3431	
Dynamics.....	3
UNIV2002	
Global Issues.....	3
	Total.....15

## 7th Semester

EGTC3256	
Steel Structures.....	3
EGTC4263	
Project Management and Control I.....	3
EGTG2215	
Circuits I.....	3
EGTG3211	
Materials Technology I.....	3
EGTG4269	
Management and Engineering	
Economics.....	3
	Total.....15

## 8th Semester

EGTC3270	
Environmental and Land-use	
Planning.....	3
EGTC4260	
Contracts and Specifications.....	3
EGTC4272	
Advanced Steel Design.....	3
EGTC4385	
Civil Technology Design Project.....	1
Technical Electives*.....	6
	Total.....16

## Civil Engineering Technology Electives\*

The student must take 6 credits of technical electives from the following list:

CHEM1202	General Chemistry II with
CHEM1204	General Chemistry
	Laboratory II
EGTC4320	Highway Design
EGTC4321	Bridge Design
EGTC4322	Hydraulic Design
EGTC4323	Seismic Design
EGTG3212	Materials Technology II
EGTM4356	Stress and Vibration Analyses

Other technical electives may be taken with prior approval from a program adviser. The only courses eligible are junior- and senior-level courses in University College: Arts • Sciences • Professional Studies.

## Construction Engineering Technology (B.S.Con.E.T.) Program

Program Co-Coordinator: Vahid Alizadeh, Ph.D., and Marzieh Azarderakhsh, Ph.D.

The Bachelor of Science in Construction Engineering Technology program educates and trains students in the areas of building construction, including construction project design, development and management. The graduates of this program work in the construction industry as contractors, field supervisors, project managers, job superintendents, estimators, safety specialists, schedulers and examiners.

### Educational Objectives

The educational objectives of the B.S. in Construction Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Construction Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in construction, operation and/or maintenance of buildings and infrastructures using their theoretical knowledge and practical skills in managing and inspecting construction projects, analyzing and estimating cost and specifying construction methods and materials.

2. Continue their formal education and obtain advanced degrees such as M.S. in construction management, M.B.A. (industrial management), M.S. in environmental studies, M.S. in technology management or other related fields.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Requirements for the Bachelor of Science in Construction Engineering Technology Degree (B.S.Con.E.T.)

### 1st Semester

	Credits
ENGR1301	
Engineering Practices, Graphics	
and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
PHYS2101	
General Physics I.....	3
PHYS2201	
Physics Laboratory I.....	1
UNIV1001	
Transitioning to University Life.....	1
	Total.....15

### 2nd Semester

EGTC1223	
Introduction to CAD.....	2
ENGR3000	
Modern Technologies: Principles,	
Applications and Impacts.....	3
ENWR1002	
Composition II: Research and	
Argument.....	3
MATH1201	
Calculus I.....	4
PHYS2102	
General Physics II.....	3
PHYS2202	
Physics Laboratory II.....	1
UNIV1002	
Preparing for Professional Life.....	1
	Total.....17

### 3rd Semester

CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
EGTC1205	
Surveying I.....	3
EGTC1245	
Construction Materials and Systems.....	3
EGTG2221	
Statics.....	3
MATH2202	
Calculus II.....	4
	Total.....17

\*Up to 6 credits of work experience may be used in place of technical electives.

# Engineering Technology

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<b>4th Semester</b>	Credits
EGTC1206	
Surveying II.....	3
EGTG2210	
Technical Communications.....	3
EGTG2228	
Strength of Materials.....	3
EGTG4221	
Engineering Statistics and Reliability.....	3
ENGR1204	
Programming Languages in	
Engineering.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	18

<b>5th Semester</b>	Credits
EGTC3250	
Structural Analysis.....	3
EGTC3257	
Concrete Structures.....	3
EGTC3261	
Estimating I.....	3
EGTC4241	
Soil Mechanics.....	3
EGTG4254	
Fluid Mechanics.....	3
Total.....	15

<b>6th Semester</b>	Credits
EGTC2246	
Timber Structures and General	
Building Systems.....	3
EGTC3262	
Estimating II.....	3
EGTC4242	
Foundations.....	3
EGTG3351	
Applied Thermodynamics.....	3
UNIV2002	
Global Issues.....	3
Total.....	15

<b>7th Semester</b>	Credits
EGTC3256	
Steel Structures.....	3
EGTC4263	
Project Management and Control I.....	3
EGTC4265	
Construction Practices I.....	3
EGTG2215	
Circuits I.....	3
EGTG4269	
Management and Engineering	
Economics.....	3
Total.....	15

<b>8th Semester</b>	Credits
EGTC3270	
Environmental and Land-use	
Planning.....	3
EGTC4260	
Contracts and Specifications.....	3
EGTC4264	
Project Management and Control II.....	3
EGTC4384	
Construction Technology Design	
Project.....	1
Technical Electives*.....	6
Total.....	16

## Construction Engineering Technology Electives\*

The student must take 6 credits of technical electives from the following list:

CHEM1202	General Chemistry II with
CHEM1204	General Chemistry
	Laboratory II
EGTC3271	Construction Labor
EGTC4320	Highway Design
EGTC4321	Bridge Design
EGTC4322	Hydraulic Design
EGTC4323	Seismic Design
EGTG3211	Materials Technology I
EGTG3431	Dynamics
EGTM4040	Heating, Ventilation and
	Air Conditioning
EGTM4041	Heating, Ventilation and
	Air Conditioning and
	Refrigeration Controls

Other technical electives may be taken with prior approval from a program adviser. The only courses eligible are junior- and senior-level courses in University College.

## Electrical Engineering Technology (B.S.E.E.T.) Program

Program Coordinator: Sameh Abdelazim, Ph.D.

The Bachelor of Science in Electrical Engineering Technology program provides the students with the knowledge, skills and necessary training for designing and building electrical and electronic devices, systems and processes. Electrical engineering technologists find employment in such areas as computer systems and networks, electronics, telecommunications, power generation and distribution, controls, instrumentation and automation. Activities include design, liaison, installation, maintenance, services and sales.

## Educational Objectives

The educational objectives of the B.S. in Electrical Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Electrical Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the analysis, design, development, application, implementation, building, manufacturing, installation, testing, operation and/or maintenance of electrical and electronics systems, including those used in control, instrumentation, communications, computer or power.

2. Continue their education to obtain advanced degrees, licensures or certifications.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Requirements for the Bachelor of Science in Electrical Engineering Technology Degree (B.S.E.E.T.)

<b>1st Semester</b>	Credits
ENGR1301	
Engineering Practices, Graphics	
and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
PHYS2101	
General Physics I.....	3
PHYS2201	
Physics Laboratory I.....	1
UNIV1001	
Transitioning to University Life.....	1
Total.....	15

\*Up to 6 credits of work experience may be used in place of technical electives.

# Engineering Technology

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<b>2nd Semester</b>	Credits
EGTC1223	
Introduction to CAD.....	2
ENWR1002	
Composition II: Research and Argument.....	3
MATH1201	
Calculus I.....	4
PHYS2102	
General Physics II.....	3
PHYS2202	
Physics Laboratory II.....	1
UNIV1002	
Preparing for Professional Life.....	1
Total.....	14

<b>3rd Semester</b>	Credits
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
EGTG2210	
Technical Communications.....	3
EGTG2215	
Circuits I.....	3
EGTG2221	
Statics.....	3
MATH2202	
Calculus II.....	4
Total.....	17

<b>4th Semester</b>	Credits
EGTE2216	
Circuits II.....	3
EGTG2228	
Strength of Materials.....	3
EGTG2286	
Digital System Design.....	3
EGTG4221	
Engineering Statistics and Reliability.....	3
ENGR1204	
Programming Languages in Engineering.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	18

<b>5th Semester</b>	Credits
EENG4375	
Electrical Energy Conversion.....	3
EGTE2287	
Microprocessor System Design I.....	3
EGTG2265	
Electronics I.....	3
EGTG3211	
Materials Technology I.....	3
EGTG4254	
Fluid Mechanics.....	3
ENGR3200	
Advanced Engineering Programming.....	3
Total.....	18

<b>6th Semester</b>	Credits
EGTE3266	
Electronics II.....	3
EGTE3288	
Microprocessor System Design II.....	3
EGTG3223	
Instrumentation.....	3
EGTG3351	
Applied Thermodynamics.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
Total.....	15

<b>7th Semester</b>	Credits
EGTC4263	
Project Management and Control I.....	3
EGTE3267	
Electronics III.....	3
EGTE4342	
Data Communications and Computer Networks.....	3
EGTG4224	
Process and Electro/Mechanical Control Systems Technology.....	3
EGTG4269	
Management and Engineering Economics.....	3
Total.....	15

<b>8th Semester</b>	Credits
EGTE4381	
Computer-aided Analysis and Design.....	3
EGTE4387	
Electrical Technology Design Project.....	1
EGTG4225	
Industrial Automation.....	3
UNIV2002	
Global Issues.....	3
Technical Electives*.....	6
Total.....	16

## Electrical Engineering Technology Electives\*

The student must take 6 credits of technical electives from the following list:  
CHEM1202 General Chemistry II with  
CHEM1204 General Chemistry  
Laboratory II  
EGTE3049 Fiber Optics Technology  
EGTE3051 Laser Technology  
EGTE4047 Optical Technology I  
EGTE4049 Optical Technology II  
EGTE4052 Optical Measurements and  
Test Equipment I

\*Up to 6 credits of work experience may be used in place of technical electives.

EGTE4054	Optical Measurements and Test Equipment II
EGTE4345	Microwave Technology
EGTG3431	Dynamics
EGTG4340	Manufacturing Systems
EGTM4040	Heating, Ventilation and Air Conditioning
EGTM4041	Heating, Ventilation and Air Conditioning and Refrigeration Controls

Other technical electives may be taken with prior approval from a program adviser. The only courses eligible are junior- and senior-level courses in University College.

## Electrical Engineering Technology Minor\*

(For Non-Electrical Engineering Technology and Non-Electrical Engineering Majors)

The minor in electrical engineering technology consists of 15 credits and is available to qualified students. This minor provides students with a foundation in electrical engineering technology, and it can enhance their employment opportunities and career options. The courses for the electrical engineering technology minor within University College: Arts • Sciences • Professional Studies are as follows:

### Required Courses (9 credits)

	Credits
EGTE2216	
Circuits II.....	3
EGTG2215	
Circuits I.....	3
EGTG2286	
Digital System Design.....	3

### Electives\*\* (6 credits)

Two courses must be chosen from the following:

EGTE2287	
Microprocessor System Design I.....	3
EGTE3266	
Electronics II.....	3
EGTE3288	
Microprocessor System Design II.....	3
EGTE4381	
Computer-aided Analysis and Design.....	3
EGTG2265	
Electronics I.....	3
EGTG3223	
Instrumentation.....	3

\*To take any course in the minor, a student must meet all prerequisites for that course.

\*\*With the approval of the academic adviser, students may take higher-level EGTE courses as electives.

# Engineering Technology

University College: Arts • Sciences • Professional Studies  
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## Mechanical Engineering Technology (B.S.M.E.T.) Program

Program Coordinator: Bernard Lefkowitz, Ph.D.

The Bachelor of Science in Mechanical Engineering Technology program prepares students to apply the principles of mechanics and energy to the design, manufacturing and operation of machinery and other mechanical devices. Employment opportunities for mechanical engineering technologists are in power generation, process control, production supervision, plant operation, manufacturing, quality assurance and reliability testing, test and field services, the automotive industry, heating, ventilating and air conditioning.

### Educational Objectives

The educational objectives of the B.S. in Mechanical Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Mechanical Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the analysis, applied design, development, implementation and management of mechanical systems and processes, including those used in fields such as mechanical design, electromechanical devices and controls, manufacturing processes or applied thermal sciences.

2. Continue their formal education leading to professional licensures or advanced degrees in science, technology or business.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Requirements for the Bachelor of Science in Mechanical Engineering Technology Degree (B.S.M.E.T.)

<i>1st Semester</i>	Credits
ENGR1301	
Engineering Practices, Graphics and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
PHYS2101	
General Physics I.....	3
PHYS2201	
Physics Laboratory I.....	1
UNIV1001	
Transitioning to University Life.....	1
	Total..... 15
<i>2nd Semester</i>	
EGTC1223	
Introduction to CAD.....	2
ENWR1002	
Composition II: Research and Argument.....	3
MATH1201	
Calculus I.....	4
PHYS2102	
General Physics II.....	3
PHYS2202	
Physics Laboratory II.....	1
UNIV1002	
Preparing for Professional Life.....	1
	Total..... 14
<i>3rd Semester</i>	
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
EGTG2210	
Technical Communications.....	3
EGTG2215	
Circuits I.....	3
EGTG2221	
Statics.....	3
MATH2202	
Calculus II.....	4
	Total..... 17
<i>4th Semester</i>	
EGTE2216	
Circuits II.....	3
EGTG2228	
Strength of Materials.....	3

	Credits
EGTG2286	
Digital System Design.....	3
EGTG4221	
Engineering Statistics and Reliability.....	3
ENGR1204	
Programming Languages in Engineering.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total..... 18
<i>5th Semester</i>	
EENG4375	
Electrical Energy Conversion.....	3
EGTC3261	
Estimating I.....	3
EGTG2265	
Electronics I.....	3
EGTG3211	
Materials Technology I.....	3
EGTG4254	
Fluid Mechanics.....	3
EGTM2232	
Mechanical Measurement and Devices.....	3
	Total..... 18
<i>6th Semester</i>	
EGTG3223	
Instrumentation.....	3
EGTG3351	
Applied Thermodynamics.....	3
EGTG3431	
Dynamics.....	3
EGTM2235	
Manufacturing Processes.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
	Total..... 15
<i>7th Semester</i>	
EGTC4263	
Project Management and Control I.....	3
EGTG4224	
Process and Electro/Mechanical Control Systems Technology.....	3
EGTG4269	
Management and Engineering Economics.....	3
EGTM3248	
Mechanical Technology Design I.....	3
UNIV2002	
Global Issues.....	3
	Total..... 15

# English Language and Literature

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<b>8th Semester</b>	Credits
EGTG4225	
Industrial Automation.....	3
EGTM3250	
Mechanical Technology Design II.....	3
EGTM4356	
Stress and Vibration Analyses.....	3
EGTM4386	
Mechanical Technology Design Project.....	1
Technical Electives*.....	6
Total.....	16

## Mechanical Engineering Technology Electives\*

CHEM1202	General Chemistry II with Laboratory II	
CHEM1204	General Chemistry Laboratory II	
EGTC3262	Estimating II	
EGTC4260	Contracts and Specifications	
EGTC4264	Project Management and Control II	
EGTE4047	Optical Technology I	
EGTE4049	Optical Technology II	
EGTG4340	Manufacturing Systems	
EGTM4040	Heating, Ventilation and Air Conditioning	
EGTM4041	Heating, Ventilation and Air Conditioning and Refrigeration Controls	

Other technical electives may be taken with prior approval from a program adviser. The only courses eligible are junior- and senior-level courses in University College.

## Mechanical Engineering Technology Minor

(For Non-Mechanical Engineering  
Technology Majors)

The minor in mechanical engineering technology consists of 15 credits, and it is relevant to students with appropriate mathematics and science backgrounds. This minor provides students in other fields of study with the fundamental aspects of mechanical engineering technology, and it can bring them additional employment opportunities and career options. The courses for a minor in mechanical engineering technology within University College are as follows:

## Required Courses (12 credits)

	Credits
EGTM2232	
Mechanical Measurement and Devices.....	3
EGTM2255	
Manufacturing Processes.....	3
EGTM3248	
Mechanical Technology Design I.....	3
EGTM3250	
Mechanical Technology Design II.....	3

## Elective\* (3 credits)

One course must be chosen from the following:

EGTG2221	Statics.....	3
EGTG2228	Strength of Materials.....	3
EGTG3351	Applied Thermodynamics.....	3
EGTG3431	Dynamics.....	3
EGTG4224	Process and Electro/Mechanical Control Systems Technology.....	3
EGTG4225	Industrial Automation.....	3
EGTG4254	Fluid Mechanics.....	3
EGTM4356	Stress and Vibration Analyses.....	3

To take any course in the minor, a student must meet all the prerequisites for that course.

# English Language and Literature Major (B.A.)

*School of the Humanities*

## Requirements for the Bachelor of Arts Degree

The school offers a major in English language and literature. The University's basic core curriculum normally requires two semesters of English (writing) of all students, including ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument. Competency in reading, writing and speaking is expected in courses throughout the University. Students revealing serious deficiencies will be assigned to appropriate courses. Students planning to major in English language and literature are required to complete 36 credits in either literature or creative writing. Qualified students may complete part of their undergraduate degree requirements at Wroxton College in England.

## Required Major Courses (18 credits)

	Credits
ENGL2000	
Literary Analysis*.....	3
ENGL2203	
British Literature I	
or	
ENGL2204	
British Literature II.....	3
ENGL3357	
Shakespeare I	
or	
ENGL3358	
Shakespeare II.....	3
ENGL3369	
American Literature I	
or	
ENGL3370	
American Literature II.....	3

\*Up to 6 credits of work experience may be used in place of technical electives.

\*With the approval of an academic adviser, students may take other high-level, relevant technical courses as elective.

\*Ideally, ENGL2000 Literary Analysis should be taken during the sophomore year or in the fifth semester at the latest.



# English Language and Literature

University College: Arts • Sciences • Professional Studies  
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## One Global/World Literature Class

(Choose one course from the list below.)

	Credits
ENGL2201	
Masterpieces of World Literature I.....	3
ENGL2202	
Masterpieces of World Literature II.....	3
ENGL3384	
Postcolonial Literature.....	3
ENGL3387	
Special Topics in World Literature.....	3
ENGL3389	
The Global Novel.....	3
ENGL3392	
International Literature.....	3
ENGL3396	
South-African Literature, Sex, Politics.....	3
ENGL3399	
Continental Drift: Sex, Gender and and Family in the South Asian Diaspora.....	3
ENGL3430	
Contemporary African Literature.....	3
ENGL4436	
Nobel Prize: Authors.....	3
ENGL4445	
Caribbean Literature.....	3

## One Pre-1800 Literature Class

(Choose one course from the list below.)

ENGL3351	
Medieval Literature.....	3
ENGL3353	
Chaucer.....	3
ENGL3355	
Renaissance Literature.....	3
ENGL3359	
17th-century Literature.....	3
ENGL3361	
Milton.....	3
ENGL3363	
18th-century Literature I.....	3
ENGL3364	
18th-century Literature II.....	3

## Major Elective Courses (18 credits)

To be taken from the following list:

ENGL1103	
English Masters.....	3
ENGL1104	
American Masters.....	3
ENGL2004	
Introduction to Fiction.....	3
ENGL2005	
Introduction to the Short Story.....	3
ENGL2140	
African-American Literature.....	3

	Credits
ENGL2205	
Introduction to Critical Writing I.....	3
ENGL2206	
Introduction to Critical Writing II.....	3
ENGL2207	
Oral and Written Reports.....	3
ENGL2357	
Introduction to Irish Literature.....	3
ENGL3007	
Major British Writers I.....	3
ENGL3008	
Major British Writers II.....	3
ENGL3024	
Studies in Poetry.....	3
ENGL3044	
The Environment in Literature and Culture.....	3
ENGL3047	
American Nature Writers.....	3
ENGL3049	
Major American Writers I.....	3
ENGL3050	
Major American Writers II.....	3
ENGL3053	
Shakespeare and Film.....	3
ENGL3056	
Modernism.....	3
ENGL3060	
Post-modern Literature.....	3
ENGL3076	
Special Stories — Super Cinema.....	3
ENGL3131	
20th-century American Worker in Literature.....	3
ENGL3200	
English Grammar.....	3
ENGL3307	
20th-century Literature.....	3
ENGL3315	
American Jewish Novel.....	3
ENGL3321	
Psychological Fiction.....	3
ENGL3322	
Psychological Novel II.....	3
ENGL3323	
Advanced Composition.....	3
ENGL3324	
Women in Literature.....	3
ENGL3325	
Creative Writing I (Fiction).....	3
ENGL3326	
Creative Writing II (Fiction).....	3
ENGL3327	
Creative Writing I (Poetry).....	3
ENGL3328	
Creative Writing II (Poetry).....	3
ENGL3329	
Advanced English Grammar.....	3

	Credits
ENGL3333	
Creative Writing I (Nonfiction).....	3
ENGL3334	
Creative Writing II (Nonfiction).....	3
ENGL3335	
Creative Writing I (Scriptwriting).....	3
ENGL3336	
Creative Writing II (Scriptwriting).....	3
ENGL3337	
Creative Writing I (Cross-genre).....	3
ENGL3338	
Creative Writing II (Cross-genre).....	3
ENGL3365	
The Romantic Era I.....	3
ENGL3366	
The Romantic Era II.....	3
ENGL3367	
The Victorian Era I.....	3
ENGL3368	
The Victorian Era II.....	3
ENGL3371	
Modern Novel I.....	3
ENGL3372	
Modern Novel II.....	3
ENGL3373	
Modern Poetry I.....	3
ENGL3374	
Modern Poetry II.....	3
ENGL3375	
Modern Drama I.....	3
ENGL3376	
Modern Drama II.....	3
ENGL3377	
The Bible and Its Influence.....	3
ENGL3380	
Literature of War.....	3
ENGL3381	
Popular Fiction.....	3
ENGL3382	
Special Topics in Black Literature.....	3
ENGL3383	
Ethnic Literature in the United States.....	3
ENGL3386	
Special Topics in British or American Literature.....	3
ENGL3388	
Regionalism in American Literature.....	3
ENGL3390	
Contemporary Fiction I.....	3
ENGL3391	
Contemporary Fiction II.....	3
ENGL3394	
Travel Literature.....	3
ENGL3409	
Glory and Shame: America on Film.....	3
ENGL3410	
Modern Novels on the Screen.....	3

# Fine Arts

University College: Arts • Sciences • Professional Studies  
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	Credits
ENGL3421	
Not of an Age ... But for All Time*.....	3
ENGL3422	
“The Play’s the Thing”*.....	3
ENGL3424	
“To Hold the Mirror Up to Nature”*.....	3
ENGL3451	
The Art of the Short Story.....	3
ENGL3456	
20th-century Drama*.....	3
ENGL3463	
England’s Green and Pleasant Land*.....	3
ENGL3466	
Three 19th-century Writers*.....	3
ENGL3467	
18th-century Literature*.....	3
ENGL3600	
Literary Basics.....	3
ENGL4403	
Writing Seminar I.....	3
ENGL4404	
Writing Seminar II.....	3
ENGL4420	
Contemporary Psychological Novel.....	3
ENGL4433	
Selected Studies in English and American Literature.....	3
ENGL4447	
“The Tempest:” Music Rich and Strange.....	3
ENGL4470	
Literature of Evil.....	3
ENGL4498	
Internship.....	3
ENGL4700	
The Eternal Search/Struggle for Identity.....	3
ENGW3002	
Creative Writing I*.....	3

## Creative Writing Minor

This 15-credit minor enables students to express themselves by writing scripts, fiction, poetry and nonfiction. Since creative writing improves writing skills in general, all students will benefit from the minor in creative writing. Students in the minor will study works of literature to understand the expectations of the genres. Additionally, by writing in workshop settings, students will learn what makes fiction, poetry, scriptwriting and creative nonfiction both distinctive and unique. All students selecting the creative writing minor must take at least nine credits of creative writing courses from the following list. The remaining

six credits can be fulfilled with any additional creative writing courses or any literature course offered in the School of the Humanities:

	Credits
ENGL3325	
Creative Writing I (Fiction).....	3
ENGL3326	
Creative Writing II (Fiction).....	3
ENGL3327	
Creative Writing I (Poetry).....	3
ENGL3328	
Creative Writing II (Poetry).....	3
ENGL3333	
Creative Writing I (Nonfiction).....	3
ENGL3334	
Creative Writing II (Nonfiction).....	3
ENGL3335	
Creative Writing I (Scriptwriting).....	3
ENGL3336	
Creative Writing II (Scriptwriting).....	3
ENGL3337	
Creative Writing I (Cross-genre).....	3
ENGL3338	
Creative Writing II (Cross-genre).....	3

## English Language and Literature Minor

The minor in English language and literature invites students to explore the literatures of the world and offers students opportunities to increase their critical and creative writing skills. A minor in English language and literature also will help students cultivate the critical thinking and reading skills needed for many professions. Students choose 15 credits of English courses.

Suggested courses:	
British Literature Course.....	3
American Literature Course.....	3
World Literature Course.....	3
English Literature Electives.....	6

# Fine Arts Major (B.A.)

## School of Art and Media Studies

The school offers a Bachelor of Arts in fine arts that is designed for students with a broad range of interests in art. A selection of music courses is offered to service the core requirements of the University.

Minors for non-fine arts majors are offered in art (computer animation, computer graphics, digital media for advertising, digital tools for social media, fine art techniques and printmaking) (see B.A. in art) and theater.

## Requirements for the Bachelor of Arts Degree

Students majoring in fine arts as a general degree program must complete 36 credits of major requirements (6 credits in art history, 6 credits in music, 6 credits in theater) and 18 credits of major elective courses (including 3 credits in computer art) in addition to 22 credits of free electives. It is recommended that students interested in this general degree consult with the school as to a specific course sequence.

## Theater Minor

(For Non-Fine Arts Majors)

A minor in theater for non-fine arts majors consists of 18 credits beyond the core.

	Credits
THEA1103	
Introduction to Theater.....	3
THEA2205	
Acting: Theory and Practice I.....	3
THEA2211	
Stagecraft.....	3
Theater or Speech Electives.....	9

Interested students should consult with the school director for further information.

\*Offered at Wroxton College, England.

# Health Information Management

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Health Information Management Major (B.S.H.I.M.)

### Henry P. Becton School of Nursing and Allied Health

(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP])

Completion of this program will result in a Bachelor of Science in Health Information Management awarded jointly by FDU and the Rutgers School of Health Professions (Rutgers SHP). The program is designed as a 2+2 program, with the first two years spent at FDU and the last two years spent at Rutgers SHP.

The health information manager is a member of the health care system and is the person responsible for the management of health information systems consistent with medical, administrative, ethical and legal requirements. Health information professionals collect, analyze and utilize data to provide information critical to the health care industry. A Registered Health Information Administrator (RHIA) collects many kinds of data from a variety of sources, monitors the integrity of the information, measures appropriate access to health records and manages the analysis and use of this data.

Students must complete 67 preprofessional credits during their first two years at FDU before applying for acceptance to the professional component at Rutgers SHP for their last two years.

### Admission Requirements

Admission to the professional component at Rutgers SHP requires:

- A separate application in the fall semester of the student's sophomore year.
- Admission decisions for the professional component are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status and cannot be guaranteed by FDU.
- Students admitted to the B.S. in Health Information Management major must maintain a minimum grade point ratio of 2.75 in their preprofessional course work.

Upon successful completion of all course work, graduates will receive a Bachelor of Science in Health Information Management (B.S.H.I.M.) with eligibility for national certification and state licensure, where applicable.

### Requirements for the Bachelor of Science in Health Information Management Degree

1st Semester	Credits
CHEM1107, CHEM1117	
Chemistry for Health Sciences (Lecture and Laboratory).....	4
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1105	
College Algebra.....	4
PSYC1103	
General Psychology.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	18

2nd Semester	Credits
ACCT2021	
Introductory Financial Accounting.....	3
BIOL2125, BIOL2126	
Microbiology for the Health Sciences (Lecture and Laboratory).....	4
ENWR1002	
Composition II: Research and Argument.....	3
PSYC2201	
Statistics.....	3
SPCH1155	
Public Speaking.....	3
UNIV1002	
Preparing for Professional Life.....	1
Total.....	17

3rd Semester	Credits
BIOL2203, BIOL2223	
Human Anatomy and Physiology I (Lecture and Laboratory).....	4
MEDT4301	
American Health Care.....	3
NURS3208	
Introduction to Health Care Economics.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Computer Science/Management Information Systems Elective.....	3
Total.....	16

4th Semester	Credits
BIOL2204, BIOL2224	
Human Anatomy and Physiology II (Lecture and Laboratory).....	4
MEDT1130	
Bioethics.....	3
MEDT4302	
Health Care Law and Policy.....	3
UNIV2002	
Global Issues.....	3
Computer Science/Management Information Systems Elective.....	3
Total.....	16

After completion of 67 credits at FDU, the program is completed at the Rutgers School of Health Professions (Rutgers SHP) (61 credits). With successful completion of the program at Rutgers SHP, the student will earn the B.S. in Health Information Management.

# Health Studies

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Health Studies Major (B.S.H.S.)

### Henry P. Becton School of Nursing and Allied Health

The Bachelor of Science in Health Studies (B.S.H.S.) program is designed to prepare graduates with an understanding of a wide range of health-related concepts including: diseases and their causes, distributions of diseases, risk factors and prevention, behavior-change theory and application and evidence-based practice. The health science program is unique in that it offers a strong emphasis on problem-solving skills and critical thinking while providing a solid foundation of general education, health-related science and in-depth perspectives in health and health care delivery.

The program offers a comprehensive curriculum with two tracks designed to educate students in health, wellness and the prevention of disease leading to entry-level positions in diverse health-care agency settings. The program will prepare graduates for future graduate study.

### Curriculum

The B.S. in Health Studies program has two tracks: a **general track** for those students who plan to work in a health care field and are not interested in pursuing advanced degrees that require more intensive science prerequisites; and a **science track** for students who plan to go on for graduate studies in medicine, dentistry, physical therapy, occupational therapy, physician assistant, health administration or other graduate programs.

### General Track

1st Semester	Credits
BIOL2203, BIOL2223	
Human Anatomy and Physiology I (Lecture and Laboratory).....	4
CHEM1107, CHEM1117	
Chemistry for Health Sciences (Lecture and Laboratory).....	4
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>15</b>

2nd Semester	Credits
BIOL2125, BIOL2126	
Microbiology for the Health Sciences (Lecture and Laboratory)..	4
BIOL2204, BIOL2224	
Human Anatomy and Physiology II (Lecture and Laboratory).....	4
ENWR1002	
Composition II: Research and Argument.....	3
MATH1105	
College Algebra.....	4
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

3rd Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
COMM2101	
Professional Communication.....	3
MATH1107	
Precalculus.....	4
UNIV2001	
Cross-cultural Perspectives.....	3
Elective.....	3
<b>Total.....</b>	<b>17</b>

4th Semester	Credits
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
MEDT1130	
Bioethics.....	3
PSYC1103	
General Psychology.....	3
SPCH1155	
Public Speaking.....	3
UNIV2002	
Global Issues.....	3
<b>Total.....</b>	<b>16</b>

5th Semester	Credits
MGMT2600	
Organizational Behavior.....	3
NURS2217	
Information Systems and Applications in Health Care.....	3
NURS3353	
Introduction to Normal and Therapeutic Nutrition.....	3
SOCI1101	
Introductory Sociology.....	3
English Literature Elective.....	3
<b>Total.....</b>	<b>14</b>

6th Semester	Credits
MGMT3700	
Human Resources Management.....	3
PSYC2201	
Statistics.....	3
SPAN1111	
Spanish for Health Personnel.....	3
History Elective.....	3
Elective.....	3
<b>Total.....</b>	<b>15</b>

7th Semester	Credits
MEDT4301	
American Health Care Systems.....	3
NURS2210	
Pathophysiology.....	3
NURS3208	
Introduction to Health Care Economics.....	3
NURS3351	
Epidemiology in Health Care.....	3
NURS4430	
Nursing Research.....	3
<b>Total.....</b>	<b>15</b>

8th Semester	Credits
MEDT4302	
Health Care Law and Policy.....	3
MEDT4303	
Global Health.....	3
MEDT4307	
Health Studies Practicum.....	3
NURS4420	
Health Care Management.....	3
<b>Total.....</b>	<b>12</b>

### Science Track

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201, CHEM1203	
General Chemistry I (Lecture and Laboratory).....	4
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>

## 2nd Semester Credits

BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....	4
CHEM1202, CHEM1204 General Chemistry II (Lecture and Laboratory).....	4
ENWR1002 Composition II: Research and Argument.....	3
MATH1201 Calculus I.....	4
UNIV1002 Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

## 3rd Semester

BIOL2205, BIOL2225 Human Anatomy and Physiology I (Lecture and Laboratory).....	4
CHEM2261, CHEM2265 Organic Chemistry I (Lecture and Laboratory).....	5
CSCI1105 Survey of Computers and Computer Software.....	3
UNIV2001 Cross-cultural Perspectives.....	3
<b>Total.....</b>	<b>15</b>

## 4th Semester

BIOL2204, BIOL2224 Human Anatomy and Physiology II (Lecture and Laboratory).....	4
BIOL2125, BIOL2126 Microbiology for the Health Sciences (Lecture and Laboratory).....	4
PSYC1103 General Psychology.....	3
SPAN1111 Spanish for Health Personnel.....	3
SPCH1155 Public Speaking.....	3
<b>Total.....</b>	<b>17</b>

## 5th Semester

MEDT1150 Bioethics.....	3
MGMT2600 Organizational Behavior.....	3
PHYS2201, PHYS2205 University Physics I (Lecture and Laboratory).....	4
PSYC2201 Statistics.....	3
UNIV2002 Global Issues.....	3
<b>Total.....</b>	<b>16</b>

## 6th Semester Credits

MGMT3700 Human Resources Management.....	3
NURS3351 Epidemiology in Health Care.....	3
PHYS2202, PHYS2204 University Physics II (Lecture and Laboratory).....	4
History Elective.....	3
<b>Total.....</b>	<b>13</b>

## 7th Semester

MEDT4301 American Health Care Systems.....	3
NURS2210 Pathophysiology.....	3
NURS3208 Introduction to Health Care Economics.....	3
NURS4430 Nursing Research.....	3
English Literature Elective.....	3
<b>Total.....</b>	<b>15</b>

## 8th Semester

MEDT4302 Health Care Law and Policy.....	3
MEDT4303 Global Health.....	3
MEDT4307 Health Studies Practicum.....	3
NURS4420 Health Care Management.....	3
<b>Total.....</b>	<b>12</b>

# History Major (B.A.)

## School of the Humanities

### Requirements for the Bachelor of Arts Degree

Undergraduate history majors must complete 36 credits of history course work. No more than 6 credits can be taken at the 1000 level, at least 9 credits must be at the HIST3000 level and 3 credits must be for either HIST4400 Senior Research Seminar or HIST4401 Honors History.

### History Minor

(For Non-History Majors)

Undergraduate students who take a major in something other than history may take a minor in history. The minor requires 15 credits of history course work. No more than 6 credits may be at the 1000 level, and at least 6 credits must be at either the 3000 level or the 4000 level. History courses taken to satisfy general education requirements may count toward the history minor as well. The total number of credits required for the B.A., however, remains 120.

### Combined Five-year B.A./M.P.A. Program

For the combined B.A. in history/M.P.A. degree program, see page 218.

# Humanities

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Humanities Major (B.A.)

### School of the Humanities

The Bachelor of Arts (B.A.) in humanities is an innovative major that allows students to explore the perspectives of and connections among multiple disciplines, including history, philosophy, literature, art and the humanistic social and behavioral sciences.

The humanities major offers more flexibility and choice in course selection than most other majors, allowing students to explore a wide range of subjects while developing crucial skills. Through studies in the humanities major, students will be helped to think clearly and critically about issues that confront human beings throughout the course of their personal and professional lives. The study of humanities encourages students to be intellectually curious and courageous, to work both cooperatively and independently, to form new connections and to master the skills of analysis, problem solving, interpretation, research methodology, effective communication and imagination.

The humanities major provides an interdisciplinary learning experience with career orientation as its main focus. This program allows students through their self-designed curriculum to gain the skills and knowledge needed to attain their educational goals within a liberal arts framework.

A humanities major must choose a 24-credit “primary concentration” in a broad interdisciplinary area such as American studies, British studies, digital humanities, global and cultural studies, liberal studies or sustainability.

### Requirements for the Bachelor of Arts Degree

The degree requirements include:

- 3 credits PHIL1000 The Life of the Mind;
- 6 credits of humanities courses (HUMN2000 and above);
- 24 credits in a concentration; and
- 3 credits of a humanities capstone seminar (HUMN3000 and above).

### Primary Concentrations

Each student chooses a primary concentration.

### American Studies Concentration

This 24-credit concentration explores the culture, history, literature and politics of the United States. In addition, through this concentration, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this concentration:

	Credits
ENGL2140	
African-American Literature.....	3
ENGL3369	
American Literature I.....	3
ENGL3370	
American Literature II.....	3
ENGL3383	
Ethnic Literature in the United States.....	3
ENGL3409	
Glory and Shame: America on Film.....	3
HIST1114	
U.S. History to 1865.....	3
HIST1115	
U.S. History Since 1865.....	3
HIST2102	
Sports in America.....	3
HIST2104	
United States Social and Cultural History.....	3
HIST2107	
U.S. Economic History.....	3
HIST3101	
American Immigration.....	3
HIST3102	
Race in America.....	3
HIST3104	
U.S. Diplomatic History.....	3
HIST3105	
U.S. Environmental History.....	3
HIST3106	
Culture and Technology in American History.....	3
HIST3107	
U.S. Constitutional History.....	3
HIST3120	
Colonial and Revolutionary America....	3
HIST3125	
The U.S. Civil War and Reconstruction.....	3
HIST3129	
U.S. History 1890–1945.....	3
HIST3130	
U.S. History Since 1945.....	3
HUMN2443/PHIL2443	
African-American Political Thought.....	3
HUMN3221	
Coming of Age in America.....	3

	Credits
MUSIC1108	
From Elvis to J. Lo: Pop Music of the Past 50 Years.....	3
PHIL1105/RELI1105	
World Religions in America.....	3
POLS2251	
Foreign Policy of the United States.....	3
POLS2253	
American Government.....	3
POLS3312	
The American Congress.....	3
POLS3349	
African-American Politics.....	3

Other selected classes may be approved by the school director.

### British Studies Concentration

This 24-credit concentration is ideal for students who wish to or have already spent time at FDU’s Wroxton College in England. Specifically, the British studies concentration offers students knowledge and insight into the culture, history, literature and politics of England. In addition, through this concentration, students develop a deeper understanding of the status of contemporary England and its place in the world today. The following courses count toward this concentration:

ART3415	
The Development of British Painting in Britain and North America*.....	3
COMM3026	
Communication: Culture and the Media in Britain*.....	3
ENGL2203	
British Literature I.....	3
ENGL2204	
British Literature II.....	3
ENGL3351	
Medieval Literature.....	3
ENGL3353	
Chaucer.....	3
ENGL3355	
Renaissance Literature.....	3
ENGL3357	
Shakespeare I.....	3
ENGL3358	
Shakespeare II.....	3
ENGL3359	
17th-century Literature.....	3
ENGL3361	
Milton.....	3
ENGL3363	
18th-century Literature.....	3

\*Offered at Wroxton College, England.

	Credits
ENGL3365	
The Romantic Era I.....	3
ENGL3367	
The Victorian Era I.....	3
ENGL3421	
Not of an Age ... But for All Time*.....	3
ENGL3422	
“The Play’s the Thing”*.....	3
ENGL3463	
England’s Green and Pleasant Land*....	3
ENGL3466	
Three 19th-century Writers*.....	3
ENGL3467	
18th-century Literature*.....	3
ENGL4447	
“The Tempest:” Music Rich and Strange.....	3
HIST3422	
Britain in the Modern Era*.....	3
HUMN4409	
The British Imagination: From King Arthur to Harry Potter.....	3
INTER3430	
The Anatomy of Contemporary Britain*.....	3
POLS3450	
British Government and Politics*.....	3
POLS3454	
Descent from Power: British Foreign Policy Since 1900*.....	3
POLS3456	
The Power and Personality of the British Prime Minister*.....	3
SOCI3440	
Women and Race in Modern Britain*...	3
SOCI3445	
Social Policy in Contemporary Britain*.....	3
Other selected classes may be approved by the school director.	

### Digital Humanities Concentration

This 24-credit concentration is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with everyone’s lives, it has become more important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in professional and personal lives as well as to understand how these same technologies can help shape lives for

better or worse. With a growing number of positions in the field of information technology and projected shortage of information technologists, a digital humanities concentration can help students become more competitive in the job market. The following courses count toward this concentration:

	Credits
ART1174	
Desktop Publishing I.....	3
ART1177/COMM1177	
Introduction to Digital Media.....	3
ART1178	
Multimedia on the Internet.....	3
ART1179	
Digital Illustration and Design.....	3
ART1192	
Digital Photography I.....	3
ART1843	
Design for the Web.....	3
ART2275	
Computer Animation II.....	3
ART2294	
2-D Computer Animation.....	3
ART2295	
3D Computer Animation.....	3
CRIM2235	
Cyber Crime.....	3
CSCI1105	
Survey of Computers and Computer Software.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
HUMN2444/PHIL2444	
Technology and Its Critics.....	3
HUMN3041/INTER3041	
Technology and Values.....	3
HUMN3350	
Social Life On and Off the Internet.....	3
INFO1101	
Computer Concepts and Technology.....	3
INFO1201	
Information Technology.....	3
INFO3205	
Digital Media Publishing.....	3
PHIL3310	
Human Perspectives in a Computerized Society.....	3
Other selected classes may be approved by the school director.	

### Global and Cultural Studies Concentration

This 24-credit concentration is designed for students who have an interest in global or popular cultures. As the workplace has

become increasingly globalized, it has become especially important for professionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who choose this concentration will be able to choose from courses that emphasize a deeper understanding of media and popular culture and courses that investigate international cultures and communities. The following courses count toward this concentration:

	Credits
AFST1101	
Africa and Africans I: History and Traditions.....	3
AFST1102	
Africa and Africans II: Communities and Culture.....	3
COMM1101	
Mass Media: Image, Sound and Text....	3
COMM1105	
Intercultural Communication.....	3
COMM2102	
International Communication.....	3
COMM2104	
Language, Culture and Communication.....	3
COMM2210	
Popular Culture and the Media.....	3
COMM2415	
Sports and Popular Culture.....	3
COMM3102	
Media, History and Society.....	3
COMM4468/HUMN4468	
Bollywood and Beyond: India in Film....	3
ENGL3307/HUMN3307	
Slavery and Global Ethics.....	3
ENGL3381	
Popular Fiction.....	3
ENGL3382	
Special Topics in Black Literature.....	3
ENGL3385	
Ethnic Literature in the United States...	3
ENGL3384	
Postcolonial Literature.....	3
ENGL3389	
The Global Novel.....	3
ENGL3392	
International Literature.....	3
ENGL3396	
South-African Literature, Sex, Politics.....	3
ENGL3399/HUMN3399	
Continental Drift: Sex, Gender and Family in the South Asian Diaspora.....	3
ENGL3430	
Contemporary African Literature.....	3

\*Offered at Wroxton College, England.

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	Credits
ENGL4445	
Caribbean Literature.....	3
HIST2245	
Islamic History.....	3
HIST3102	
Race in America.....	3
HIST3202	
Middle East.....	3
HIST3360	
Modern African History.....	3
HUMN2440/PHIL2440	
Human Rights.....	3
HUMN2443/PHIL2443	
African-American Political Thought.....	3
HUMN2454	
Music, Power and Freedom.....	3
HUMN2456	
Dissent in Popular Culture: From Inception to Iraq.....	3
HUMN3220	
Political and Social History of Music.....	3
HUMN3221	
Coming of Age in America.....	3
HUMN3307/ENGL3307	
Slavery and Global Ethics.....	3
HUMN3316/RELI3316	
Babylon the Great: Culture, Religion and Conflict in Iraq.....	3
HUMN3396	
South-African Literature.....	3
LANG2201	
Cultural Awareness and Languages.....	3
PHIL2321	
African Philosophy.....	3
POLS2206	
American Minority Politics.....	3
POLS3324	
American Minority Groups.....	3
POLS3349	
African-American Politics.....	3
POLS3363	
Middle East Politics.....	3
POLS3364	
Middle East in World Affairs.....	3
POLS3367	
Africa in World Affairs I.....	3
POLS3368	
Africa in World Affairs II.....	3
POLS4463	
Political and Economic Challenges in Africa.....	3
Other selected classes may be approved by the school director.	

## Liberal Studies Concentration

This 24-credit concentration offers the maximum amount of choice and variety for students seeking a solid academic grounding in multiple disciplines. As such, it is particularly suited for adult learners or for students pursuing careers in elementary education who can benefit from a broad background in multiple disciplines within the humanities and humanistic social sciences fields such as art history, communications, English, history, music, philosophy, political science, religion, sociology and theater. The following courses count toward this concentration:

### Art History Courses

ART1120	Modern Art to Mid-century
ART1131	History of Graphic Design and Illustration
ART1133	History of Photography
ART2238	The Global Art World

*Communication, English, History, Humanities, Language, Music, Philosophy, Political Science, Religion, Sociology,*

### Theater Courses

COMM2000 or above
ENGL2000 or above
HIST2000 or above
HUMN2000 or above
LANG2000 or above
MUSIC1000 or above
PHIL1000 or above
POLS2000 or above
RELI1000 or above
SOCI1000 or above
THEA1000 or above

## Sustainability Concentration

This 24-credit concentration provides students with a solid foundation in the growing field of sustainability, which includes the impact and long-term viability of environmentalism, social justice, ecology, health sciences, marine biology and food production, among other areas. As an increasing number of businesses, nonprofit organizations and educational institutions commit to “green” lifestyles and practices, FDU humanities graduates who choose this concentration place themselves in a particularly competitive position in the job market. This concentration is also augmented by the Career Development Center, which can help students get internships with various local environmental and sustainability-focused groups. The following courses count toward this concentration:

## Required Course (3 credits)

	Credits
BIOL1001, BIOL1011	
Principles of Modern Biology (Lecture and Laboratory).....	3

## Other Courses (21 credits)

BIOL1105, BIOL1115	
The Human Environment (Lecture and Laboratory).....	3
BIOL2250, BIOL2150	
Ecology and Field Biology (Lecture and Laboratory).....	4
ENGL3044	
The Environment in Literature and Culture.....	3
ENGL3047	
American Nature Writers.....	3
ENVR1001, ENVR1002	
Introduction to Environmental Science (Lecture and Laboratory).....	3
ENVR1205, ENVR1215	
The Great Pacific Northwest: Environmental Issues and Cultural Perspectives (Lecture and Laboratory).....	3
HIST3105	
U.S. Environmental History.....	3
HUMN2447	
Ecology for Life: Building a Lifestyle for a Sustainable Planet.....	3
MBIO1118, MBIO1128	
Beach Ecology (Lecture and Laboratory).....	3
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
PHIL3311	
The Ethics of Food.....	3
POLS3011	
Human Rights in Global Environment....	3
SOCI3318	
Health and Society: Access and Issues....	3
Other selected classes may be approved by the school director.	

## Minors (For Non-majors)

### American Studies Minor

This 15-credit minor explores the culture, history, literature and politics of the United States. In addition, through this minor, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this minor:





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Credits		Credits		Credits	
ART2275	Computer Animation II..... 3	ENGL3396	South-African Literature, Sex, Politics..... 3	AFST1101	Africa and Africans I: History and Traditions..... 3
ART2294	2-D Computer Animation..... 3	ENGL3399/HUMN3399	Continental Drift: Sex, Gender and Family in the South Asian Diaspora..... 3	AFST1102	Africa and Africans II: Communities and Culture..... 3
ART2295	3D Computer Animation..... 3	HIST3103	Gender in U.S. History..... 3	COMM1101	Mass Media: Image, Sound and Text..... 3
CRIM2235	Cyber Crime..... 3	HUMN2255/RELI2255	Person, Gender and Sexuality: Judaism, Christianity and Islam..... 3	COMM1105	Intercultural Communication..... 3
CSCI1105	Survey of Computers and Computer Software..... 3	HUMN2439	Radical Political Thought..... 3	COMM2102	International Communication..... 3
ENGR3000	Modern Technologies: Principles, Applications and Impacts..... 3	HUMN2440/PHIL2440	Human Rights..... 3	COMM2104	Language, Culture and Communication..... 3
HUMN2444	Technology and Its Critics..... 3	HUMN3307/PHIL3307	Slavery and Global Ethics..... 3	COMM2210	Popular Culture and the Media..... 3
HUMN3041/INTER3041	Technology and Values..... 3	LANG3322/HUMN3322	Latin-American Women Authors..... 3	COMM2415	Sports and Popular Culture..... 3
HUMN3350	Social Life On and Off the Internet..... 3	PHIL2105	Current Moral and Social Issues..... 3	COMM3102	Media, History and Society..... 3
INFO1101	Computer Concepts and Technology..... 3	POLS2206	American Minority Politics..... 3	COMM4468/HUMN4468	Bollywood and Beyond: India in Film..... 3
INFO1201	Information Technology..... 3	POLS3011	Human Rights in Global Environment..... 3	ENGL3381	Popular Fiction..... 3
INFO3205	Digital Media Publishing..... 3	POLS3327	Civil Rights and Liberties..... 3	ENGL3382	Special Topics in Black Literature..... 3
PHIL2444	Technology and Its Critics..... 3	POLS4320	Women's America..... 3	ENGL3383	Ethnic Literature in the United States... 3
PHIL3310	Human Perspectives in a Computerized Society..... 3	PSYC3311	Psychology of Love and Interpersonal Relations..... 3	ENGL3384	Postcolonial Literature..... 3
Other selected classes may be approved by the school director.		PSYC3325	Psychology of Women..... 3	ENGL3389	The Global Novel..... 3
<b>Gender and Sexuality Studies Minor</b>		PSYC3370	Psychology of Men..... 3	ENGL3392	International Literature..... 3
This interdisciplinary minor is for students who wish to explore gender and its rela- tion to other axes of power: race, class, ethnicity and sexuality. These concepts will be used to analyze human experience in its bodily, political, economic and culture dimensions.		PSYC3384	Theories of Personality..... 3	ENGL3396	South-African Literature, Sex, Politics..... 3
The minor consists of five elective courses to be chosen from the following list; no more than two courses can be taken in the same discipline:		Other selected courses may be approved by the school director.			
CRIM1112	Minorities, Women and the Criminal Justice System..... 3	<b>Global and Cultural Studies Minor</b>			
CRIM1135	Social Justice and Structural Inequality..... 3	This 15-credit minor is designed for stu- dents who have an interest in global or popular cultures. As the workplace has become increasingly globalized, it has become especially important for profes- sionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who choose this minor will be able to choose from courses that emphasize a deeper understanding of media and popular culture and courses that investigate international cultures and communities. The following courses count toward this minor:			
CRIM2216	Sex, Deviance and the Law..... 3	ENGL3430	Contemporary African Literature..... 3	ENGL3445	Caribbean Literature..... 3
CRIM3307	Domestic Violence..... 3	HIST2245	Islamic History..... 3	HIST2245	Islamic History..... 3
ENGL3324	Women in Literature..... 3	HIST3102	Race in America..... 3	HIST3202	Middle East..... 3
		HIST3202	Middle East..... 3	HIST3360	Modern African History..... 3
		HIST3360	Modern African History..... 3	HUMN2440/PHIL2440	Human Rights..... 3
		HUMN2440/PHIL2440	Human Rights..... 3	HUMN2443/PHIL2443	African-American Political Thought..... 3
		HUMN2443/PHIL2443	African-American Political Thought..... 3		

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	Credits
HUMN2454	
Music, Power and Freedom.....	3
HUMN2456	
Dissent in Popular Culture: From	
Inception to Iraq.....	3
HUMN3220	
Political and Social History of Music.....	3
HUMN3221	
Coming of Age in America.....	3
HUMN3307/PHIL3307	
Slavery and Global Ethics.....	3
HUMN3316/RELI3316	
Babylon the Great: Culture, Religion	
and Conflict in Iraq.....	3
HUMN3396	
South-African Literature.....	3
LANG2201	
Cultural Awareness and Languages.....	3
PHIL2321	
African Philosophy.....	3
PHIL3307/HUMN3307	
Slavery and Global Ethics.....	3
POLS2206	
American Minority Politics.....	3
POLS3324	
American Minority Groups.....	3
POLS3349	
African-American Politics.....	3
POLS3363	
Middle East Politics.....	3
POLS3364	
Middle East in World Affairs.....	3
POLS3367	
Africa in World Affairs I.....	3
POLS3368	
Africa in World Affairs II.....	3
POLS4463	
Political and Economic Challenges	
in Africa.....	3
Other selected classes may be approved by the school director.	

## Sustainability Minor

This 15-credit minor provides students with a solid foundation in the growing field of sustainability, which includes the impact and long-term viability of environmentalism, social justice, ecology, health sciences, marine biology and food production, among other areas. As an increasing number of businesses, nonprofit organizations and educational institutions commit to “green” lifestyles and practices, FDU humanities graduates who choose this minor place themselves in a particularly competitive position in the job market. This minor is also augmented by the Career Development Center, which can

help students get internships with various local environmental and sustainability-focused groups. The following courses count toward this minor:

<b>Required Course (3 credits)</b>	Credits
BIOL1001, BIOL1011	
Principles of Modern Biology	
(Lecture and Laboratory).....	3

### Other Courses (12 credits)

BIOL1105, BIOL1115	
The Human Environment	
(Lecture and Laboratory).....	3
BIOL2250, BIOL2150	
Ecology and Field Biology	
(Lecture and Laboratory).....	4
ENGL3044	
The Environment in Literature	
and Culture.....	3
ENGL3047	
American Nature Writers.....	3
ENVR1001, ENVR1002	
Introduction to Environmental	
Science (Lecture and Laboratory).....	3
ENVR1205, ENVR1215	
The Great Pacific Northwest:	
Environmental Issues and	
Cultural Perspectives	
(Lecture and Laboratory).....	3
HIST3105	
U.S. Environmental History.....	3
HUMN2447	
Ecology for Life: Building a Lifestyle	
for a Sustainable Planet.....	3
MBIO1118, MBIO1128	
Beach Ecology	
(Lecture and Laboratory).....	3
MBIO1209, MBIO1219	
Introduction to Marine Biology	
(Lecture and Laboratory).....	4
PHIL3311	
The Ethics of Food.....	3
POLS3011	
Human Rights in Global Environment... 3	
SOCI3318	
Health and Society: Access and Issues...3	
Other selected classes may be approved by the school director.	

## Information Technology Major (B.S.)

**Lee Gildart and Oswald Haase**  
**School of Computer Sciences and Engineering**

The Bachelor of Science in information technology (IT) program, the only program of its kind in Bergen County, N.J., provides students with the comprehensive knowledge, skills and training to pursue careers as IT professionals in one of the most dynamic areas of modern technology. In this exciting and challenging field, information technologists help the general user community solve its IT problems, determine which technologies are most appropriate for its needs and show how to employ these technologies effectively.

Students learn how to evaluate current and emerging technologies; identify user needs; design user-friendly interfaces; apply, configure and manage these technologies; and assess their impacts on individual users, organizations and the environment.

The program emphasizes the practical applications of information technology. It provides students with both the breadth and depth of knowledge in information technology needed for professional success in this field. The curriculum requires the successful completion of 123 credits, which are distributed as follows:

	Credits
Information Technology Core	
Requirements.....	54–57
Mathematics, Science and	
Programming Requirements.....	28
Liberal Arts Requirements.....	23
Minor or Concentration.....	15–18
Total.....	123

The IT core courses provide students with the integrated, technical knowledge and training in various areas of information technology. Students learn about multimedia technology, the internet, website design, computer-based systems, computer networks, data communications, network security, disaster recovery, databases, application development, programming, management and economics. They also study the influence of information technology on the economy, politics, culture and the global society. Students can avail themselves of the opportunity for a cooperative educa-

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tion experience that provides a paid professional salary, invaluable on-the-job work experience and a maximum of 6 credits earned toward the degree.

The mathematics, science and programming courses provide students with a strong analytical and scientific foundation. The students receive a well-rounded education and a strong foundation for thoughtful global citizenship from the liberal arts courses. The development of strong oral and written communication skills is emphasized throughout the curriculum.

The program enables students to take at least one out of three primary concentrations. The program also allows students sufficient flexibility to concentrate in a secondary area of information technology or to undertake a minor in another discipline. An adviser is assigned to each student in the first year and guides him or her throughout the program. Any concentration areas or minors undertaken by the students must be approved first by the adviser.

## Educational Objectives

The educational objectives of the B.S. in information technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The program will produce graduates who:

1. Enter into and advance in the profession of information technology, computer science, management information systems, business administration or other related fields.

2. Continue their education by obtaining professional certificates or advanced degrees in information technology, computer science, management information systems, business administration or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty, staff and the Industrial Advisory Board.

## Student Outcomes

The B.S. in information technology program has adopted the Student Outcomes of the Computing Accreditation Commission (CAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each IT graduate will demonstrate the following attributes and achievements as required by the CAC of ABET by the time of graduation:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

3. Communicate effectively in a variety of professional contexts.

4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

6. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation and administration of computing-based systems.

The program plans to apply for an accreditation review from the CAC of ABET.

## Requirements for the Bachelor of Science Degree

<i>1st Semester</i>	Credits
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
INFO1101	
Computer Concepts and Technology.....	3
MATH1105	
College Algebra.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>14</b>

<i>2nd Semester</i>	Credits
ART1177	
Introduction to Digital Media.....	3
ENWR1002	
Composition II: Research and Argument.....	3
INFO1201	
Information Technology.....	3
MATH1107	
Precalculus.....	4
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>14</b>

<i>3rd Semester</i>	Credits
EGTG2210	
Technical Communications.....	3
INFO2101	
Computer Programming for Information Technologists I.....	3
INFO2105	
Internet and Web Applications.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Laboratory Science Elective.....	4
<b>Total.....</b>	<b>16</b>

<i>4th Semester</i>	Credits
ENGR2286	
Digital System Design.....	3
INFO2102	
Computer Programming for Information Technologists II.....	3
INFO2106	
Website Design and Management.....	3
UNIV2002	
Global Issues.....	3
Laboratory Science Elective.....	4
<b>Total.....</b>	<b>16</b>

<i>5th Semester</i>	Credits
CSCI2232	
Data Structures.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
MATH2337	
Applied Statistics I.....	3
Minor or Concentration Courses.....	6
<b>Total.....</b>	<b>15</b>

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<b>6th Semester</b>	Credits
CSCI3268	
Database Systems.....	3
INFO3201	
Human Computer Interface.....	3
INFO3205	
Digital Media Publishing.....	3
INFO4278	
Operating Systems*	
or	
Minor or Concentration Course.....	3
Information Technology Elective.....	3
Total.....	15

<b>7th Semester</b>	Credits
ENGR4210	
Managerial and Engineering	
Economic Analysis.....	3
INFO4101	
Data Communications and	
Computer Networks I.....	3
INFO4201	
Information Technology Needs	
Assessment and Management.....	3
MATH2255	
Discrete Structures.....	3
Minor or Concentration Course.....	3
Information Technology Elective.....	3
Total.....	18

<b>8th Semester</b>	Credits
CSCI3274	
Linux System Administration.....	3
INFO4205	
Information Technology	
Capstone Project.....	3
INFO4410	
Foundations of Cybersecurity.....	3
Credits	
INFO4844	
Programming for the Internet*	
or	
Minor or Concentration Course.....	3
Minor or Concentration Course.....	3
Total.....	15

\*Students take either INFO4278 Operating Systems or INFO4844 Programming for the Internet to fulfill the concentration in network and system administration or the concentration in web-development technology, respectively, and a minor. Alternatively, they can take the concentration in security and forensics and another CSCI or INFO course as approved by an academic adviser.

<b>Science Electives</b>	Credits
One full-year sequence with laboratories totaling 8 credits to be chosen from:	
BIOL1251, BIOL1252	
General Biology I, II.....	6
BIOL1253, BIOL1254	
Laboratory: General Biology I, II.....	2
CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
PHYS2101, PHYS2102	
General Physics I, II.....	6
PHYS2201, PHYS2202	
Physics Laboratory I, II.....	2

**Primary Concentrations**  
Students must complete at least one of the three primary concentration areas: **web-development technology, network and system administration** and **security and forensics**. Web-development technology requires students to take INFO4844 Programming for the Internet, while network and system administration requires students to take INFO4278 Operating Systems. All other courses required for each of these two primary concentrations are already included in the BS in information technology curriculum and are listed below. All courses for the security and forensics concentration are also listed below.

**Web-development Technology Concentration**  
The courses for the area of concentration in web-development technology are designed to prepare students in planning and developing professional websites and/or managing an existing website for businesses and e-commerce. Apart from gaining fundamentals of website development, students learn the applications of digital media, effective user-interface design and internet programming. Employment opportunities in business and industries dealing with website design and maintenance abound in the tri-state area. Students must complete 15 credits of required courses and one 3-credit elective to be eligible for a certificate in this area. To take any course in the concentration, a student must meet all the prerequisites for that course.

<b>Required Courses (15 credits)</b>	Credits
ART1177	
Introduction to Digital Media.....	3
INFO2105	
Internet and Web Applications.....	3
INFO2106	
Website Design and Management.....	3
INFO3201	
Human Computer Interface.....	3
INFO3205	
Digital Media Publishing.....	3
<b>Elective (3 credits)</b>	
INFO4844	
Programming for the Internet.....	3

**Network and System Administration Concentration**  
The courses for the area of concentration in network and system administration are designed to prepare students to assume responsibilities involving IT system planning, installation and maintenance in business and industries. Students learn the fundamentals of operating systems, networking and information security and obtain hands-on laboratory experience in these subjects. Looking ahead, employment opportunities in network administration are expected to be above average in the overall IT sector. Students must complete 15 credits of required courses and one 3-credit elective to be eligible for a certificate in this area. Moreover, students are encouraged to obtain professional certifications to enhance their career objectives. A number of courses in this concentration may help lead to professional certification in Network+ or Security+. To take any course in the concentration, a student must meet all the prerequisites for that course.

<b>Required Courses (15 credits)</b>	Credits
CSCI3274	
Linux System Administration.....	3
INFO2101	
Computer Programming for	
Information Technologists I.....	3
INFO4101	
Data Communications and	
Computer Networks I.....	3
INFO4201	
Information Technology Needs	
Assessment and Management.....	3
INFO4410	
Foundations of Cybersecurity.....	3

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## Elective (3 credits)

	Credits
INFO4278 Operating Systems.....	3

## Security and Forensics Concentration

The courses for the area of concentration in security and forensics are designed to prepare students in assessing vulnerabilities and risks, cyber defense and gathering digital evidence in case of a cybercrime. The courses in this concentration are developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. Fairleigh Dickinson University is designated as a Center of Academic Excellence in Cyber Defense Education (CAE-CDE) by the National Security Agency and Department of Homeland Security. As such, the B.S. degree program with security and forensics concentration satisfies all knowledge unit requirements set forth towards this designation. Students must complete 18 credits of required courses to be eligible for a CAE-CDE-designated program-completion certificate. To take any course in the concentration, a student must meet the prerequisite for that course.

## Required Courses (18 credits)

CRIM2218 Computer Technologies and Cyber Crime.....	3
CRIM3327 File System Forensic Analysis and Investigation.....	3
CRIM4010 Computer Forensic, Software and Hardware Applications.....	3
CSCI2235 Survey of Computing Security.....	3
CSCI3274 Linux System Administration*.....	3
CSCI3783 Information Security.....	3

## Computer Forensics Minor

(For All Majors)

Computer forensics involves the identification, preservation, extraction, interpretation and the documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. The minor, consisting of 15 credits, will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

## Required Courses (12 credits)

	Credits
CRIM2218 Computer Technologies and Cyber Crime.....	3
CRIM3327 File System Forensic Analysis and Investigation.....	3
INFO1101 Computer Concepts and Technology.....	3
INFO4101 Data Communications and Computer Networks I.....	3

## Elective (3 credits)

CRIM4010 Computer Forensic, Software and Hardware Applications or INFO4410 Foundations of Cybersecurity.....	3
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## Information Technology Minor

(For Non-Information Technology Majors)

The minor in information technology consists of 15 credits. It is relevant for students of all majors, and it will help them gain an advantage in the ever-increasing technological demands required for a variety of professions. Students who complete this minor will learn the fundamental aspects of practical applications of information technology. The courses for the minor are as follows:

## Required Courses (12 credits)

	Credits
CSCI3268 Database Systems.....	3
INFO1101 Computer Concepts and Technology.....	3
INFO2101 Computer Programming for Information Technologists I.....	3
INFO2105 Internet and Web Applications.....	3

## Elective\* (3 credits)

One course must be chosen from the following:

ENGR2286 Digital System Design.....	3
INFO2102 Computer Programming for Information Technologists II.....	3
INFO3201 Human Computer Interface.....	3
INFO4101 Data Communications and Computer Networks I.....	3
INFO4201 Information Technology Needs Assessment and Management.....	3

To take any course in the minor, a student must meet all the prerequisites for that course.

## Website Design and Development Minor/Certificate

(For Non-Information Technology Majors)

Liberal arts students wishing to pursue a minor and/or a certificate in website design and development must complete 15 credits of courses. Students who complete this minor and/or certificate program will have hands-on learning in social, corporate or individual website design and maintenance. Additionally, such knowledge will be readily applicable to showcase major findings, events and educational materials in any liberal arts and humanities discipline. The courses for the minor and/or certificate in website design and development within University College are as follows:

\*With the approval of an academic adviser, students may take other higher-level INFO or CSCI courses as electives.

# International Affairs • Marine Biology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Required Courses (12 credits)

Credits

ART1177	
Introduction to Digital Media.....	3
CSCI1105	
Survey of Computers and Computer Software.....	3
INFO1101	
Computer Concepts and Technology.....	3
INFO2105	
Internet and Web Applications.....	3

## Elective Course\* (3 credits)

One course must be chosen from the following:

INFO2106	
Website Design and Management.....	3
INFO3201	
Human Computer Interface.....	3
INFO3205	
Digital Media Publishing.....	3

To take any course in the minor and/or a certificate program, a student must meet all the prerequisites for that course.

## B.S. in Information Technology/M.S. in Computer Science

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science (B.S.) in information technology and a Master of Science (M.S.) degree in computer science with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 3.00. See page 243 for details.

## International Affairs Major (B.A.)

### School of Criminal Justice, Political Science and International Studies

#### Requirements for the Bachelor of Arts Degree

In addition to meeting the course requirements of the liberal arts core curriculum of University College, students majoring in international affairs should fulfill the ethical and moral analysis core competency with POLS2606 Ethics and Politics.

#### Course Requirements

POLS1102	Geography and World Issues
POLS2204	International Relations
POLS2212	International Law
POLS2231	Comparative Government and Politics and
POLS3313	Problems in International Politics or
POLS4875	Honors in Political Science

#### International Affairs Minor

(For Non-International Affairs or Non-Political Science Majors)

The minor in international affairs requires 15 credits of course work.

POLS1102	Geography and World Issues
POLS2204	International Relations
POLS2211	International Organization
POLS2212	International Law
POLS2231	Comparative Government and Politics

If taken as a general education course, POLS1102 Geography and World Issues will also count toward the minor in international affairs. The total number of credits required for the B.A., however, remains 120.

## Marine Biology Major (B.S.)

### School of Natural Sciences

The marine biology curriculum fulfills basic requirements for admission into graduate and professional schools. It also may serve as a terminal degree.

The program includes a laboratory field experience where students could have a full semester of warm-water Caribbean field experience. It will consist of three 4-credit marine biology courses and a 3-credit marine biology course for a total of 15 credits. Each of the marine biology courses consists of a lecture and field-based component; the field component is supported by laboratory studies. Typically, a 3-credit, field-based course consists of a one-hour lecture component and an equivalent of four hours of laboratory work. Fieldwork study sites will include reefs, mangroves, sea grass beds and salt marshes. To participate in any field experience, a student must have earned a minimum grade point ratio of 2.25 in biology course work and be in good academic standing with a grade of C- or higher in course work. Further information can be obtained from the school's director.

Students must have a C- or higher in BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; MBIO1209 Introduction to Marine Biology; and ENVR1111, ENVR1112 Oceanography to take a 2000- or higher-level science course.

The School of Natural Sciences has a strict "C-gate" policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

\*With the approval of an academic adviser, students may take other higher-level INFO or CSCI courses as electives.

# Marine Biology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Requirements for the Bachelor of Science Degree

For matriculation in the marine biology curriculum, successful completion of secondary school courses in elementary algebra and plane geometry and a year of science are required.

Candidates for the Bachelor of Science degree with a major in marine biology must complete the courses outlined below.

### 1st Semester

	Credits
CHEM1201	
General Chemistry I.....	3
CHEM1205	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

### 2nd Semester

CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
ENVR1111, ENVR1112	
Oceanography (Lecture and Laboratory).....	4
MATH1107	
Precalculus	
or	
MATH1201	
Calculus I.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

### 3rd Semester

BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2265	
Organic Chemistry Laboratory I.....	2

	Credits
MATH1201	
Calculus I	
or	
MATH2202	
Calculus II.....	4
Humanities Course*.....	3
Total.....	16

### 4th Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
Humanities Course**.....	3
Total.....	15

### 5th Semester

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
MBIO3650, MBIO3651	
Physiology of Marine Animals (Lecture and Laboratory).....	4
SPCH	
Oral Communication Elective.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Social and Behavioral Sciences Elective***.....	3
Total.....	17

### 6th Semester

MBIO1118, MBIO1128	
Beach Ecology (Lecture and Laboratory).....	3
MBIO3200	
Tropical Marine Vegetation.....	4
MBIO3400	
Tropical Marine Invertebrates.....	4
MBIO3900	
Tropical Marine Vertebrates.....	4
Total.....	15

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1155 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

### 7th Semester

	Credits
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I (Lecture).....	3
UNIV2002	
Global Issues.....	3
Total.....	14

### 8th Semester

BIOL4414, BIOL4415	
Animal Behavior (Lecture and Laboratory).....	4
CHEM3281	
Biochemistry I.....	3
ENVR6706	
Applied Principles of Geographic Information Systems.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II (Lecture).....	3
Total.....	14
Total.....	121

## Environmental Science Concentration

Follow semesters outlined above and continue with the following:

### 5th Semester

MBIO3650, MBIO3651	
Physiology of Marine Animals (Lecture and Laboratory).....	4
UNIV2001	
Cross-cultural Perspectives.....	3
Environmental Science Course.....	3
Oral Communication Elective.....	3
Social and Behavioral Sciences Elective*....	3
Total.....	16

\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).



<b>6th Semester</b>	Credits
MBIO1118, MBIO1128 Beach Ecology (Lecture and Laboratory).....	3
MBIO3200 Tropical Marine Vegetation.....	4
MBIO3400 Tropical Marine Invertebrates.....	4
MBIO3900 Tropical Marine Vertebrates.....	4
Total.....	15

<b>7th Semester</b>	
BIOL4405 Ethics in Science.....	3
PHYS2201 Physics Laboratory I.....	1
PHYS2203 University Physics I (Lecture).....	3
UNIV2002 Global Issues.....	3
Environmental Science Courses.....	6
Total.....	16

<b>8th Semester</b>	
PHYS2202 Physics Laboratory II.....	1
PHYS2204 University Physics II (Lecture).....	3
Environmental Science Courses.....	9
Total.....	13
<i>Total....</i>	<i>133</i>

## Marine Biology Minor

(For Non-Science Majors)

Required 15-credit minor. Students must take these courses (no substitute courses allowed) and must study abroad.

### Required Courses

MBIO1118, MBIO1128 Beach Ecology (Lecture and Laboratory).....	3
MBIO3200 Tropical Marine Vegetation.....	4
MBIO3400 Tropical Marine Invertebrates.....	4
MBIO3900 Tropical Marine Vertebrates.....	4

## Mathematics Major (B.A.)

**Lee Gildart and Oswald Haase  
School of Computer Sciences and  
Engineering**

### Requirements for the Bachelor of Arts Degree

The Lee Gildart and Oswald Haase School of Computer Sciences and Engineering offers a Bachelor of Arts in mathematics and a Bachelor of Science in mathematics (see page 186).

### Educational Objectives

The educational objectives of the B.A. in mathematics program define the skills, knowledge and attributes that will be needed and achieved by the graduates for a successful career and professional accomplishments three to four years after graduation. The program will produce graduates who:

1. Have an appropriate combination of theoretical knowledge and practical skills in mathematics to enter into and advance professionally in mathematics and related fields.
2. Have a well-rounded education with a strong liberal arts foundation that encourages and supports meaningful dialogue with individuals from other disciplines.
3. Are able to adapt to and succeed in a dynamic global environment.
4. Can engage effectively in oral, written and graphical communications in both interpersonal and public settings.
5. Are prepared to participate in life-long learning opportunities.
6. Are prepared to continue formal education and obtain advanced degrees in mathematics or related fields.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies.

The educational objectives of the B.A. and B.S. in mathematics programs are fundamentally the same except that the B.A. in mathematics program is built on a liberal arts foundation. The requirements for the two programs are different.

Students seeking the B.A. in mathematics will complete the liberal arts core requirements of University College. The mathematics requirement in the core curriculum is fulfilled by MATH1201, MATH2202

Calculus I, II. The science requirement in the core curriculum is fulfilled by PHYS2203, PHYS2204 University Physics I, II with corresponding laboratories. Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and two units of science.

The program requires the successful completion of 120 credits. The mathematics major will take 35 credits in mathematics distributed as follows:

### Mathematics Requirements (35 credits)

	Credits
MATH1201 Calculus I.....	4
MATH2202 Calculus II.....	4
MATH2203 Calculus III.....	3
MATH2210 Differential Equations.....	3
MATH2255 Discrete Structures.....	3
MATH3220 Linear Algebra.....	3
MATH3225 Abstract Algebra.....	3
MATH3230 Analysis.....	3
MATH3237 Probability and Statistics I.....	3
MATH3341 Advanced Engineering Mathematics.....	3
Mathematics Elective*.....	3
Total.....	35

### Computer Science Requirements (9 credits)

CSCI1201 Computer Programming I.....	3
CSCI1202 Computer Programming II.....	3
CSCI2232 Data Structures.....	3
Total.....	9

### Science Requirements (8 credits)

PHYS2201 Physics Laboratory I.....	1
PHYS2202 Physics Laboratory II.....	1
PHYS2203 University Physics I.....	3
PHYS2204 University Physics II.....	3
Total.....	8

\*It must be a 3000- or higher-level mathematics course.

# Mathematics

University College: Arts • Sciences • Professional Studies  
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**Electives** Credits  
Technical Electives.....12\*

## General Education Requirements (38 credits)

### I. College Competencies\*\* (12 credits)

ENGR2210  
Technical Communications.....3  
ENGR3000  
Modern Technologies: Principles,  
Applications and Impacts.....3  
ENWR1001  
Composition I: Rhetoric and Inquiry.... 3  
ENWR1002  
Composition II: Research and  
Argument..... 3

### II. Liberal Arts Distribution (21 credits)

Language Course.....3  
Social and Behavioral Sciences Courses.....6  
Art and Culture Courses..... 6  
Humanities Courses.....6

### III. University Requirements (8 credits)

UNIV1001  
Transitioning to University Life.....1  
UNIV1002  
Preparing for Professional Life.....1  
UNIV2001  
Cross-cultural Perspectives.....3  
UNIV2002  
Global Issues.....3  
For further information please consult  
with the Lee Gildart and Oswald Haase  
School of Computer Sciences and Engi-  
neering.

\*Students must take 12 credits of technical electives,  
which will include courses in computer science, engi-  
neering, engineering technology, information technolo-  
gy and/or mathematics at the appropriate levels based  
on their interest. Mathematics courses must be 3000-  
or higher-level. A 3-credit course in a related discipline  
can be substituted for a 3-credit technical elective.  
Internship credits and honors courses can be used as  
technical electives. Students must obtain prior approval  
from the GHSCSE academic adviser for all course  
selections and substitutions.

\*\*MATH1201 Calculus I, a quantitative analysis  
course, and PHYS2203 University Physics I and  
PHYS2204 University Physics II, scientific analysis  
courses, satisfying college competencies are also includ-  
ed in the Mathematics Requirements and Science  
Requirements, respectively.

## Mandatory Minor (15 credits)

Students pursuing Bachelor of Arts  
degrees are required to complete a **minor**  
of at least 15 credits in a **specific disci-  
pline**. Minors are specializations that sup-  
plement majors and contribute to general  
education in that they provide the student  
with an element of breadth. The require-  
ments for minors and concentrations are  
provided in the section describing the  
major requirements.

# Mathematics Major (B.S.)

## Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

The Bachelor of Science degree with a  
major in mathematics offers concentra-  
tions in applied mathematics, pure mathe-  
matics or pharmaceutical biostatistics.  
Each program requires successful comple-  
tion of 120 credits.

Prerequisites: elementary and interme-  
diate algebra, plane geometry, trigonome-  
try and two units of science including one  
unit of physics.

## Educational Objectives

The educational objectives of the B.S. in  
mathematics program define the skills,  
knowledge and attributes that will be  
needed and achieved by the graduates for a  
successful career and professional accom-  
plishments three to four years after gradu-  
ation. The program will produce graduates  
who:

1. Have an appropriate combination of  
theoretical knowledge and practical skills  
in mathematics to enter into and advance  
professionally in mathematics and related  
fields.
2. Have a well-rounded education that  
encourages and supports meaningful dia-  
logue with individuals from other disci-  
plines.
3. Are able to adapt to and succeed in a  
dynamic global environment.
4. Can engage effectively in oral, writ-  
ten and graphical communications in both  
interpersonal and public settings.
5. Are prepared to participate in life-  
long learning opportunities.
6. Are prepared to continue formal edu-  
cation and obtain advanced degrees in  
mathematics or related fields.

These objectives are consistent with the  
mission of Fairleigh Dickinson University  
to educate and prepare students as world  
citizens through global education. They  
also fulfill the needs of our constituencies.

## Requirements for the Bachelor of Science Degree

Students must choose a concentration in  
applied mathematics, pure mathematics or  
pharmaceutical biostatistics.

# Mathematics

University College: Arts • Sciences • Professional Studies  
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## Applied Mathematics or Pure Mathematics Concentration

The following is for a Bachelor of Science in mathematics with either an applied mathematics or pure mathematics concentration. Students must meet with their advisers to discuss the course sequence for the concentration.

### Required Mathematics Courses

	Credits
MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH2203	
Calculus III.....	3
MATH2210	
Differential Equations.....	3
MATH2255	
Discrete Structures.....	3
MATH3220	
Linear Algebra.....	3
MATH3225	
Abstract Algebra.....	3
MATH3230	
Analysis.....	3
MATH3237	
Probability and Statistics I.....	3
MATH3341	
Advanced Engineering Mathematics.....	3
Mathematics Elective*.....	3
Total.....	35

### Required Computer Science Courses

CSCI1201	
Computer Programming I.....	3
CSCI1202	
Computer Programming II.....	3
CSCI2252	
Data Structures.....	3
Total.....	9

### Required Liberal Arts Courses

ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and Argument.....	3
ENGR2210	
Technical Communications.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3

\*It must be a 3000- or higher-level mathematics course.

	Credits
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
Total.....	20

### Required Science Courses

PHYS2201	
Physics Laboratory I.....	1
PHYS2202	
Physics Laboratory II.....	1
PHYS2203	
University Physics I.....	3
PHYS2204	
University Physics II.....	3
Total.....	8

### Electives

Science Electives.....	11
Eight credits of science electives must be a one-year sequence with laboratory; the remaining 3 credits must be a 2000- or higher-level course in electrical engineering, computer science, chemistry or biology.	
Humanities Elective.....	3
Students planning to do graduate work should take a 3-credit course in French, German or Russian.	
Social and Behavioral Sciences Elective.....	3
Technical Electives.....	16

Students must take 16 credits of technical electives, which will include courses in computer science, engineering, engineering technology, information technology and/or mathematics at the appropriate levels based on their interest. Mathematics courses must be 3000- or higher-level. A 1-credit free elective can be substituted for the 1-credit technical elective. Also, a 3-credit course in a related discipline can be substituted for a 3-credit technical elective. Internship credits and honors courses can be used as technical electives. Students must obtain prior approval from the Gildart Haase School of Computer Sciences and Engineering academic adviser for all course selections and substitutions.

Total..... 33

### Minor Sequence

A minor sequence of 15 credits is required in an area related to mathematics. An adviser will assist students in selecting the proper courses.

## Pharmaceutical Biostatistics Concentration

The following is for a Bachelor of Science in mathematics with a pharmaceutical biostatistics concentration.

### Required Mathematics Courses

	Credits
MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH2203	
Calculus III.....	3
MATH2243	
Statistical Programming.....	3
MATH2255	
Discrete Structures.....	3
MATH2337	
Applied Statistics I.....	3
MATH2338	
Applied Statistics II.....	3
MATH3220	
Linear Algebra.....	3
MATH3237	
Probability and Statistics I.....	3
MATH3238	
Probability and Statistics II.....	3
Mathematics Elective*.....	3
Total.....	35

### Required Computer Science Courses

CSCI1201	
Computer Programming I.....	3
CSCI1202	
Computer Programming II.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2232	
Data Structures.....	3
Total.....	12

### Required Liberal Arts Courses

ENGR2210	
Technical Communications.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and Argument.....	3
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1

\*It must be a 3000- or higher-level mathematics course.

# Mechanical Engineering

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	Credits
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
Humanities Elective.....	3
Social and Behavioral Sciences Elective.....	3
Total.....	26

## Required Science Courses

BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1201, CHEM1203	
General Chemistry I (Lecture and Laboratory).....	4
CHEM1202, CHEM1204	
General Chemistry II (Lecture and Laboratory).....	4
Total.....	16

## Electives

Science Electives.....	8
A year sequence in biology or chemistry (epidemiology, organic chemistry, microbiology, etc.) is recommended.	
Technical Electives.....	8
Students must take 8 credits of technical electives which will include courses in computer science; engineering; engineering technology; information technology; mathematics; and/or pharmaceutical industry, regulations and management at the appropriate levels based on their interest. Mathematics courses must be 3000- or higher-level. A 2-credit free elective can be substituted for the 2-credit technical elective. Also, a 3-credit course in a related discipline can be substituted for a 3-credit technical elective. Internship credits and honors courses can be used as technical electives. Students must obtain prior approval from the GHSCSE academic adviser for all course selections and substitutions.	
Total.....	16

## Minor Sequence

A minor sequence of 15 credits is required in an area related to mathematics. An adviser will assist students in selecting the proper courses.

## Mathematics Minor

*(For Non-Mathematics Majors)*

The minor in mathematics consists of 17 credits, and it is relevant to students in all majors. Mathematics is needed in every aspect of one's daily life and in every profession. Students who complete this minor will possess strong mathematical knowledge and problem-solving skills that are useful in the contemporary workplace and in graduate studies, including those in business, natural sciences, computer science, education, engineering and technology. The courses for a minor in mathematics within University College are as follows:

### Required Courses (8 credits)

	Credits
MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4

### Electives\* (9 credits)

Three courses must be chosen from the following:	
MATH2203	
Calculus III.....	3
MATH2210	
Differential Equations.....	3
MATH2255	
Discrete Structures.....	3
MATH3220	
Linear Algebra.....	3
MATH3237	
Probability and Statistics I.....	3
MATH3238	
Probability and Statistics II.....	3
MATH3341	
Advanced Engineering Mathematics.....	3
To take any course in the minor, a student must meet all the prerequisites for that course.	

\*With the approval of an academic adviser, students may take other higher-level MATH courses as electives.

# Mechanical Engineering (B.S.M.E.)

**Lee Gildart and Oswald Haase**  
**School of Computer Sciences and Engineering**

Mechanical engineering is one of the largest, broadest and most diverse engineering disciplines. Mechanical engineers are employed in practically all the sectors of the engineering industry, including manufacturing, power, automotive, aerospace, rail, marine, utilities, materials, defense, HVAC and construction. Mechanical engineers account for many engineering jobs.

The Bachelor of Science in Mechanical Engineering (B.S.M.E.) degree program prepares graduates for entrance into the profession of mechanical engineering or graduate study. The program graduates will work in industry as mechanical engineers, typically specializing as machine design engineers, manufacturing engineers, power engineers, electromechanical engineers or automotive engineers. They may also hold other job titles, including, marine engineers, acoustics and vibration engineers, HVAC engineers, facilities engineers, robotics engineers, tool engineers, piping engineers, lubrication engineers, project engineers and systems engineers.

As the nation's infrastructure ages and its population continues to grow, more mechanical engineers will be needed to maintain, repair, upgrade or expand utility infrastructure, transportation systems and public and private facilities, as well as to build new ones. Contributing to energy conservation, environmental sustainability and protection, mechanical engineers help build and maintain green transportation, buildings and cities, as well as manage renewable-energy projects, including building solar farms, wind turbines and wave-energy converters, in addition to hydroelectric and geothermal plants. They also develop cutting-edge technologies such as autonomous vehicles, electric cars, hybrid cars, unmanned aerial vehicles, autonomous underwater vehicles, robots, advanced manufacturing, prostheses and nanotechnology. Moreover, mechanical engineers will help revive the advanced, domestic manufacturing industry as promoted by the federal and state governments. The mechanical engineering

# Mechanical Engineering

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program and profession will be very attractive to prospective students because of its excellent career opportunities, outstanding average starting salary, excellent median long-term salary, projected job growth and great career fulfillment.

The B.S.M.E. curriculum provides students with a varied and balanced educational experience through an appropriate combination of theoretical concepts and practical applications. It also provides them with an engineering design experience that expands in breadth and depth as they progress through their studies. A stimulating course of study is maintained by offering students a reasonable variety of contemporary courses. The engineering laboratory experience is fully integrated with course work. Students work in state-of-the-art laboratories.

The program focuses on four key areas of mechanical engineering: mechanical design, electromechanical devices and controls, advanced manufacturing and thermal sciences. Students will learn to analyze, design, build, test, operate and maintain mechanical components, devices, systems, processes and facilities; estimate costs; and manage projects. Working on alternative energy training systems, students will also learn to utilize renewable-energy sources and technologies, energy-saving materials and devices, thereby protecting the environment and sustaining scarce resources. Moreover, through courses in process control, industrial automation, manufacturing processes and trainers such as reconfigurable manufacturing systems, industrial robots, computer numerical control (CNC) machines, 3-D printers and programmable-logic-controller-based systems, they will be trained to develop, configure and program manufacturing and electromechanical systems. Students will be able to intern or find employment with mechanical engineering, mechanical contracting and manufacturing companies; public utilities; municipalities; and other government agencies within the state and nearby states.

The program requires the successful completion of 131 credits with a minimum cumulative grade point ratio of 2.00. The credit distribution is as follows:

	Credits
Mathematics and Science Requirements..	36
Liberal Arts Requirements.....	20
Mechanical Engineering	
Core Requirements.....	75
Total....	131

The mathematics and science requirements provide students with the needed foundation in these areas while the liberal arts requirements provide them with a well-rounded education and a strong foundation for thoughtful global citizenship. The mechanical engineering core requirements provide students with the comprehensive knowledge, skills and training needed for professional success in the field of mechanical engineering, bridging the mathematics and basic sciences to engineering sciences, design and applications. Nine credits of elective courses in the mechanical core allow students to focus further on one particular area of mechanical engineering. Alternatively, 6 credits of the electives may be used to undertake cooperative educational experience to obtain practical work experience.

In addition to mathematics and science courses, students study foundational engineering courses such as engineering practices, computer-aided drafting, circuits, statics, strength of materials, dynamics, thermodynamics, fluid mechanics, computer programming and management and engineering economics. With these courses as foundation, they begin to take courses in four complementary areas of mechanical engineering: mechanical design, advanced manufacturing, electromechanical devices and control and thermal sciences.

**Mechanical Design:** Students learn to analyze, design, build and test mechanical components, devices, systems and processes in a mechanical engineering design course; a computer-aided design and manufacturing course; a two-course sequence in senior project design; and a course in stress and vibration analyses.

**Advanced Manufacturing:** In this area, students take four courses: mechanical measurement and devices, manufacturing processes, computer-aided design and manufacturing and industrial automation. Aside from acquiring knowledge in industrial automation and manufacturing concepts, processes and planning, they learn to use, set up, configure and program 3-D printers, CNC machines, configurable (flexible) manufacturing systems, robotic arms and programmable-logic-controller-based systems.

**Electromechanical Devices and Controls:** Students study the theory and applications of electromechanical devices in four courses: circuits, which is one of the foundational courses; electrical energy con-

version; analog and digital control; and industrial automation. In particular, students learn about basic circuit theory and building circuits; motors and generators with actual hands-on applications; renewable-energy sources and technologies; automatic feedback control systems; and programmable-logic-controller-based systems.

**Thermal Sciences:** A three-course sequence in thermal sciences: thermodynamics, which is one of the foundational courses; thermal systems analysis and design; and heat transfer, is taken by students. They learn to analyze and design thermal systems.

The computer-aided design and manufacturing course is listed under the two areas of mechanical design and advanced manufacturing since it is applicable to both. Similarly, the industrial automation course is listed under the two areas of electromechanical devices and control as well as advanced manufacturing.

Substantial engineering design experience is obtained from the integrated laboratory experience throughout the curriculum. Advanced courses help students acquire experimental, design and computer simulation skills and integrate theory with practice. As a culmination of their design experience, senior students are required to successfully conceptualize, design and build a mechanical component, system or process in a two-course sequence in senior design project, by utilizing their past course work, following professional practice, and exercising sound engineering judgment.

## Educational Objectives

The educational objectives of the B.S.M.E. program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S.M.E. program will produce graduates who:

1. Enter into and advance in the profession of mechanical engineering, particularly in the areas of mechanical design, electromechanical devices and controls, advanced manufacturing and thermal sciences.
2. Continue their formal education and obtain advanced degrees such as M.S. degree in mechanical engineering or other related fields.
3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

# Mechanical Engineering

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The educational objectives of the B.S.M.E. program are compatible with the University, college and school missions. They also fulfill the needs of the program constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

## Student Outcomes

The B.S.M.E. program has adopted the Student Outcomes of the Engineering Accreditation Commission (EAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each mechanical engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.
3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
4. An ability to communicate effectively with a range of audiences.
5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.
7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The B.S.M.E. program plans to apply for an accreditation review from the EAC of ABET upon the degree completion of its first graduating class.

## Cooperative Education Option

Students in the B.S.M.E. program have the option to undertake a cooperative education experience and earn a total of six academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

## Requirements for the Bachelor of Science in Mechanical Engineering Degree

<b>1st Semester</b>	Credits
ENGR1301	
Engineering Practices, Graphics and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV1001	
Transitioning to University Life.....	1
	Total..... 15
<b>2nd Semester</b>	
ENGR1223	
Introduction to CAD.....	2
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV1002	
Preparing for Professional Life.....	1
	Total..... 17

<b>3rd Semester</b>	Credits
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENGR2221	
Statics.....	3
MATH2210	
Differential Equations.....	3
MENG2232	
Mechanical Measurement and Devices.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total..... 16

<b>4th Semester</b>	
ENGR1204	
Programming Languages in Engineering.....	3
ENGR2228	
Strength of Materials.....	3
ENGR3351	
Applied Thermodynamics.....	3
ENGR3431	
Dynamics.....	3
MATH5220	
Linear Algebra.....	3
MENG2235	
Manufacturing Processes.....	3
	Total..... 18

<b>5th Semester</b>	
EENG2221	
Signals and Systems I.....	4
ENGR4254	
Fluid Mechanics.....	3
MATH2203	
Calculus III.....	3
MENG3150	
Thermal Systems Analysis and Design.....	3
Science Elective*.....	4
	Total..... 17

\*Science Elective includes CHEM1202/CHEM1204 General Chemistry II Lecture (3 credits) and Laboratory (1 credit); BIOL1251/BIOL1253 General Biology I (3 credits) and Laboratory (1 credit); BIOL2205/BIOL2225 Human Anatomy and Physiology I Lecture (3 credits) and Laboratory (1 credit); and PHYS3205 Modern Physics (3 credits) and PHYS4430 Selected Studies in Physics (1 credit).

# Mechanical Engineering Tech. • Medical Imaging Sciences

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<b>6th Semester</b>	Credits
ENGR2210	
Technical Communications.....	3
ENGR4210	
Managerial and Engineering	
Economic Analysis.....	3
ENGR4221	
Engineering Statistics and Reliability.....	3
MENG3155	
Heat Transfer.....	3
MENG3230	
Computer-aided Design and	
Manufacturing.....	3
UNIV2002	
Global Issues.....	3
	Total..... 18

<b>7th Semester</b>	Credits
ENGR3211	
Engineering Materials I.....	3
MENG4248	
Mechanical Engineering Design I.....	3
MENG4355	
Analog and Digital Control.....	3
MENG4375	
Electrical Energy Conversion.....	3
MENG4384	
Preparation for Senior Design Project....	1
Technical Elective*.....	3
	Total..... 16

<b>8th Semester</b>	Credits
MENG4356	
Stress and Vibration Analyses.....	3
MENG4360	
Industrial Automation.....	3
MENG4386	
Senior Design Project.....	2
Technical Electives*.....	6
	Total..... 14
	Total..... 131

## Mechanical Engineering Technology (B.S.M.E.T.)

**Lee Gildart and Oswald Haase**  
**School of Computer Sciences and Engineering**

See “Engineering Technology Majors,”  
page 162.

## Medical Imaging Sciences Major (B.S.M.I.S.)

**Henry P. Becton School of Nursing and Allied Health**

*(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP])*

Completion of this program will result in a Bachelor of Science in Medical Imaging Sciences with a concentration in cardiovascular sonography or diagnostic medical sonography awarded jointly between FDU and the Rutgers School of Health Professions (Rutgers SHP). Students must complete 92 preprofessional credits during their first three years at FDU before applying for acceptance to the professional component at Rutgers SHP for their senior year.

### Admission Requirements

Admission to the professional component at Rutgers SHP requires:

- A separate application in the fall of the junior year.
- Admission decisions for the professional component are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status and cannot be guaranteed by FDU.
- Students admitted to the B.S. in Medical Imaging Sciences major must maintain a minimum grade point ratio of 2.85 in their preprofessional course work.

Upon successful completion of all course work, graduates will receive a B.S. in Medical Imaging Sciences (B.S.M.I.S.), with eligibility for national certification and state licensure, where applicable.

Students must choose from one of the two areas of concentration (see page 192).

\*Technical Electives include CENG3261 Estimating I; EENG2222 Signals and Systems II; EENG3265 Electronics I; ENGR2286 Digital System Design; ENGR4001, ENGR4002 FE/EIT Exam Preparation I and II; ENGR4265 Project Management in Engineering and Technology; MENG3288 Microcontroller System Design; MENG4040 Heating, Ventilation and Air Conditioning (HVAC); MENG4041 HVAC and Refrigeration Controls; MENG4250 Mechanical Engineering Design II; and MENG4565 Advanced Fluid Mechanics.

# Medical Imaging Sciences

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## Requirements for the Bachelor of Science in Medical Imaging Sciences Degree

### 1st Semester Credits

BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

### 2nd Semester

BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH1201	
Calculus I.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

### 3rd Semester

BIOL2203, BIOL2223	
Human Anatomy and Physiology I (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
CSCI1105	
Survey of Computers and Computer Software.....	3
SPCH1155	
Public Speaking.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	18

### 4th Semester Credits

BIOL2125, BIOL2126	
Microbiology for the Health Sciences (Lecture and Laboratory)....	4
BIOL2204, BIOL2224	
Human Anatomy and Physiology II (Lecture and Laboratory).....	4
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Total.....	16

### 5th Semester

CHEM3281	
Biochemistry I.....	3
MEDT1130	
Bioethics.....	3
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
PSYC1103	
General Psychology.....	3
Total.....	13

### 6th Semester

NURS4420	
Health Care Management.....	3
PHIL1000	
The Life of the Mind.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
PSYC2201	
Statistics.....	3
Total.....	13

After completion of three years of study (a minimum of 92 credits) at FDU, the program is completed in 12–15 months at the Rutgers School of Health Professions (Rutgers SHP). With the successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Medical Imaging Sciences.

## Concentrations

### Cardiovascular Sonography Concentration

Cardiovascular sonography prepares individuals to perform cardiovascular sonography of the cardiovascular system at the request of physicians to aid in diagnosis, therapeutic treatments and cardiovascular-disease management.

The program includes instruction in reviewing patient histories and clinical data, patient care, investigative and examination procedures, diagnostic procedures data analysis and documentation, physician consultation, equipment monitoring and professional standards and ethics.

### Diagnostic Medical Sonography Concentration

Diagnostic medical sonographers provide patient services using diagnostic ultrasound under the supervision of a licensed physician. Sonographers look for subtle differences between health and pathological areas and decide what images to include in their report. The sonographer may provide this service in a variety of medical settings when the physician is responsible for the use and interpretation of ultrasound procedures.



# Medical Technology

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## Medical Technology Major (B.S.)

### Henry P. Becton School of Nursing and Allied Health

The courses prescribed by the American Society for Clinical Pathology are completed in the first three years. Following this, application must be made to an approved program for a 12- to 15-month training period, which qualifies a student for admittance to the examination of the Board of Registry. The Bachelor of Science degree is awarded upon the completion of the clinical program.

Candidates for the degree must complete the course of study outlined.

### Recommended Course Sequence

<b>1st Semester</b>	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1107	
Precalculus.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>
<b>2nd Semester</b>	
BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH1201	
Calculus I.....	4
<b>Total.....</b>	<b>18</b>

<b>3rd Semester</b>	Credits
BIOL2237, BIOL2239	
Human Structure and Function I (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PSYC1103	
General Psychology.....	3
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>13</b>

<b>4th Semester</b>	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PSYC2201	
Statistics.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
<b>Total.....</b>	<b>15</b>

<b>5th Semester</b>	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
CHEM3281	
Biochemistry I.....	3
MEDT1130	
Bioethics.....	3
UNIV2002	
Global Issues.....	3
<b>Total.....</b>	<b>17</b>

<b>6th Semester</b>	Credits
BIOL5306	
Immunology.....	3
MEDT1201	
Introduction to Medical Technology.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3
SPCH1155	
Public Speaking.....	3
<b>Total.....</b>	<b>15</b>

<b>7th and 8th Semesters</b>	Credits
12 months at an approved hospital	
MEDT4205	
Clinical Laboratory Education I.....	16
MEDT4206	
Clinical Laboratory Education II.....	16
<b>Total.....</b>	<b>32</b>
<b>Total.....</b>	<b>126</b>

### Requirements for the Bachelor of Science Degree

<b>Biology Requirements</b>	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
BIOL2203, BIOL2223	
Human Anatomy and Physiology I (Lecture and Laboratory).....	4
BIOL2204, BIOL2224	
Human Anatomy and Physiology II (Lecture and Laboratory).....	4
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL5306	
Immunology.....	3
<b>Total.....</b>	<b>31</b>

### Science Requirements

CHEM1201	
General Chemistry I.....	3
CHEM1202	
General Chemistry II.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
CHEM1204	
General Chemistry Laboratory II.....	1
CHEM2261	
Organic Chemistry I.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I (Lecture).....	3
<b>Total.....</b>	<b>22</b>

### Mathematics and Computer Science Requirements

CSCI1105	
Survey of Computers and Computer Software.....	3
MATH1107	
Precalculus.....	4
MATH1201	
Calculus I.....	4
PSYC2201	
Statistics.....	3
<b>Total.....</b>	<b>14</b>

# Nursing

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## Medical Technology Requirements

	Credits
MEDT1130	
Bioethics.....	3
MEDT1201	
Introduction to Medical Technology.....	3
MEDT4205	
Clinical Laboratory Education I.....	16
MEDT4206	
Clinical Laboratory Education II.....	16
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3
	Total..... 44

## Humanities/Social Science Requirements

ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and	
Argument.....	3
PHIL1000	
The Life of the Mind.....	3
SPCH1155	
Public Speaking.....	3
	Total..... 12

## University Requirements

UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
	Total..... 8
	Total.... 120

## Clinical Laboratory Experience

Six semesters of college work are required for admission to this hospital program. At the end of the sixth semester, students may apply to a program of medical technology approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Students will select their laboratory affiliations in consultation with the faculty adviser. A clinical training program is required of students who wish to qualify for the examinations given by the Board of Registry of the American Society for Clinical Pathology (A.S.C.P.) for the certification as a medical technologist.

Admission to the schools is clearly competitive. If students are not selected for hospital internship during the fourth year, an option may be chosen to continue for a B.S. in biology. Toward the completion of this degree, students may again apply for hospital internship.

The University now has affiliations with four approved programs of medical technology as listed below. Upon the successful completion of a 12- to 15-month training period, students are eligible to receive 32 credits toward the Bachelor of Science degree. The approved programs offer similar programs of training, although conditions may vary slightly from site to site.

Students report to the laboratory five days a week. A two-week vacation period is suggested by the A.S.C.P. and is customary. Students should expect to work under supervision and to have reference books available. MEDT4205 and MEDT4206 Clinical Laboratory Education I, II carry a course fee for fall and spring.

The affiliated programs of medical technology in New Jersey are as follows:

### Affiliated Programs and Officials

Jersey Shore Medical Center, Neptune, New Jersey

Louis J. Zinterhofer, M.D., Director  
Rutgers School of Health Professions\*

Debra Josko, Ph.D., M.L.T. (A.S.C.P.)  
M., S.M., Program Director

Valley Hospital, Ridgewood, New Jersey  
Metin Taskin, M.D., Pathologist

\*This program is part of a joint degree program and is 15 months in duration, see "Clinical Laboratory Sciences," page 150.

## Nursing Major (B.S.N.)

### Henry P. Becton School of Nursing and Allied Health

The goal of the nursing program is to prepare a professional nurse to provide comprehensive nursing care to persons and families in all environments where health care is required.

Laboratory experiences are concurrent with nursing theory and begin at the first semester of sophomore-level courses. Beginning at the sophomore level, students are assigned to a variety of clinical laboratory experiences at various locations including hospitals, clinics, nursing homes and community health agencies. The program is reviewed and evaluated periodically by the faculty, students, consumers, community health care agencies and external accrediting bodies to assess quality and relevance.

The Bachelor of Science in Nursing program is open to high school graduates, to college graduates holding a baccalaureate degree in a field other than nursing and to diploma or associate degree R.N.s. College graduates attend an accelerated track that is identical in nursing content to the four-year nursing program. The accelerated nursing program offers two options: a full-time program, beginning each year in May, that can be completed in one calendar year following fulfillment of all prerequisites and a part-time program, beginning each year in September, that can be completed in two calendar years following fulfillment of all prerequisites.

The nursing program is accredited by the Commission on Collegiate Nursing Education and the New Jersey Board of Nursing.

The program is offered at the Metropolitan Campus and the Florham Campus.

### Admission Requirements

In addition to the general admission requirements of the University and a recommended minimum combined SAT score of 1,100 (mathematics 500 minimum score), students entering the four-year, generic nursing program must have completed:

- 1 year of chemistry with laboratory
- 1 year of biology with laboratory
- 1 semester of physics is strongly recommended

Students entering the accelerated nursing program must have at least a 3.00 cumulative grade point ratio (CGPR) for their undergraduate degree. The following prerequisites also are required for the accelerated tracks (minimum grade of B):

- Anatomy and Physiology (8 credits)
- Chemistry (4 credits)
- Economics (3 credits)
- Bioethics or Medical Ethics (3 credits)
- Microbiology (4 credits)
- Statistics (3 credits)

A score at the 50th percentile or better on a standardized Nursing Admission Test.

An interview may be required for admission to the nursing program.

Students applying to the R.N. to B.S.N. to M.S.N. program must have graduated from a regionally accredited diploma or associate degree nursing program with a cumulative grade point ratio of at least 3.00 and be licensed or eligible for licensure as an R.N. in the state of New Jersey. An interview is required to discuss transfer credits and plan each student's course sequence.

### **Admission with Advanced Standing**

Candidates for transfer from regionally accredited institutions may be admitted with advanced standing upon presentation of proper credentials and a conference with the School of Nursing and Allied Health. Candidates must have at least a 3.00 cumulative grade point ratio (CGPR) in their previous college course work. Grades in comparable non-nursing courses must be C or better. Transfer of nursing courses requires grades of B or better and the approval of the nursing faculty.

### **Criminal History Record Search and Urine Drug Testing**

Fairleigh Dickinson University has affiliation agreements with health care institutions in the region to provide clinical experiences for students of the Henry P. Becton School of Nursing and Allied Health. These affiliated health care institutions are required by the Joint Commission on Accreditation of Health Care Organizations Standard (HR1.20) to conduct criminal history checks and urine drug testing on all personnel who work in clinical settings, including nursing students. All students must comply with this

requirement to evaluate their suitability for placement in a clinical experience. Information obtained may cause affiliated health care institutions to reject a student for a clinical experience.

### **Health Clearance for Nursing Students**

As for all University students, nursing students are required to have a full physical examination and health history before beginning classes. A copy of the physical examination and the health history, including a complete immunization record, a record of negative tuberculosis status and a record of two measles immunizations (under age 40), must be on file in the campus Student Health Services Office.

Upon matriculation as a nursing major and before any clinical courses can be taken, nursing students must present documentation of antibody titers for rubella (German measles), rubeola (measles), mumps and varicella (chickenpox) showing immunity. If antibody titers do not demonstrate immunity, vaccine must be administered and antibody titers repeated. The hepatitis B vaccine is strongly recommended. Evidence of a complete hepatitis B vaccine series or a waiver of vaccination must be on file in the campus Student Health Services Office.

A complete health record must be on file for matriculated nursing majors prior to the start of NURS2003, NURS2113 Fundamentals of Nursing I.

Students may participate in clinical experiences only if their health file is complete and up-to-date. If students are unable to attend clinical experiences because of incomplete health records, as with all absences, they may be in jeopardy of not meeting course objectives.

### **CPR Certification and Student Malpractice Insurance**

Prior to beginning sophomore-level clinical nursing courses, nursing majors must submit to the School of Nursing and Allied Health office documentation of a current cardiopulmonary resuscitation (CPR) card and of current individual student malpractice insurance coverage. Each year thereafter, nursing majors must submit updated documentation of CPR certification and insurance coverage to the School of Nursing and Allied Health.

### **Evidence of Car Insurance**

Prior to beginning the senior-level courses NURS4410, NURS4411 Community Health Nursing, nursing majors must submit documentation of current automobile liability insurance to the School of Nursing and Allied Health office, since students are expected to transport themselves to clients' homes for clinical experiences as part of this course.

### **Grading**

Students must earn a B- or better in order to enter the next nursing course. Grades in non-nursing courses must be a C or better. Clinical laboratory experience is graded by the use of satisfactory (S) or unsatisfactory (U). The laboratory experience is a vital part of the curriculum; therefore, an unsatisfactory clinical grade will be recorded as an F for the course.

Students must maintain a minimum cumulative grade point ratio of 2.67 to progress to subsequent nursing courses. Nursing courses may be repeated only once.

### **Requirements for the Bachelor of Science in Nursing Degree (Generic)**

<b>1st Semester</b>	Credits
BIOL2203, BIOL2223	
Human Anatomy and Physiology I (Lecture and Laboratory).....	4
CHEM1107, CHEM1117	
Chemistry for Health Sciences (Lecture and Laboratory).....	4
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
UNIV1001	
Transitioning to University Life.....	1
	Total..... 15
<b>2nd Semester</b>	
BIOL2125, BIOL2126	
Microbiology for the Health Sciences (Lecture and Laboratory).....	4
BIOL2204, BIOL2224	
Human Anatomy and Physiology II (Lecture and Laboratory).....	4
ENWR1002	
Composition II: Research and Argument.....	3

# Nursing

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	Credits	<b>6th Semester</b>	Credits	<b>Fall Semester</b>	Credits
MATH1105		NURS3320, NURS3321		<b>(Junior-level Courses)</b>	
College Algebra.....	4	Women's Health Nursing		NURS3300, NURS3301	
NURS1101		(Lecture and Laboratory).....	5	Medical-Surgical Nursing I	
A Preview of Professional Nursing.....	2	NURS3340, NURS3341		(Lecture and Laboratory).....	5
UNIV1002		Nursing Care of the Child and Family		NURS3310, NURS3311	
Preparing for Professional Life.....	1	(Lecture and Laboratory).....	5	Psychiatric Nursing	
<b>Total.....</b>	<b>18</b>	PSYC2201		(Lecture and Laboratory).....	5
<b>3rd Semester</b>		Statistics.....	3	NURS3320, NURS3321	
NURS2003, NURS2113		SPCH1155		Women's Health Nursing	
Fundamentals of Nursing I		Public Speaking.....	3	(Lecture and Laboratory).....	5
(Lecture and Laboratory).....	3	<b>Total.....</b>	<b>16</b>	NURS3340, NURS3341	
NURS2200, NURS2201		<b>7th Semester</b>		Nursing Care of the Child	
Health Assessment		NURS4410, NURS4411		and Family	
(Lecture and Laboratory).....	4	Community Health Nursing		(Lecture and Laboratory).....	5
NURS2210		(Lecture and Laboratory).....	5	<b>Spring Semester</b>	
Pathophysiology.....	3	NURS4420		<b>(Senior-level Courses)</b>	
PSYC1103		Health Care Management.....	3	NURS4410, NURS4411	
General Psychology.....	3	NURS4430		Community Health Nursing	
UNIV2001		Nursing Research.....	3	(Lecture and Laboratory).....	5
Cross-cultural Perspectives.....	3	Physical Education Course.....	1	NURS4420	
<b>Total.....</b>	<b>16</b>	<b>Total.....</b>	<b>12</b>	Health Care Management.....	3
<b>4th Semester</b>		<b>8th Semester</b>		NURS4430	
NURS2004, NURS2114		NURS4440, NURS4441		Nursing Research.....	3
Fundamentals of Nursing II		Medical-Surgical Nursing II		NURS4440, NURS4441	
(Lecture and Laboratory).....	3	(Lecture and Laboratory).....	8	Medical-Surgical Nursing II	
NURS2005		NURS4460		(Lecture and Laboratory).....	8
Professional Communication Skills:		Preparation for Success.....	1	NURS4460	
Individual, Family and Groups.....	3	Free Elective.....	3	Preparation for Success.....	1
NURS2007		<b>Total.....</b>	<b>12</b>	<b>Requirements for the Two-</b>	
Pharmacotherapeutics.....	3	<b>Requirements for the One-</b>		<b>Year Accelerated Bachelor of</b>	
SPAN1111		<b>Science in Nursing Degree</b>		<b>Science in Nursing Degree</b>	
Spanish for Health Personnel.....	3	<b>Summer Session I</b>		<b>Fall Semester</b>	
UNIV2002		<b>(Freshman-level Courses)</b>		<b>(Freshman-level Courses)</b>	
Global Issues.....	3	NURS2003, NURS2113		NURS2003, NURS2113	
<b>Total.....</b>	<b>15</b>	Fundamentals of Nursing I		Fundamentals of Nursing I	
<b>5th Semester</b>		(Lecture and Laboratory).....	3	(Lecture and Laboratory).....	3
NURS3208		NURS2005		NURS2005	
Introduction to Health Care		Professional Communication Skills:		Professional Communication Skills:	
Economics.....	3	Individual, Family and Groups.....	3	Individual, Family and Groups.....	3
NURS3209		NURS2007		NURS2200, NURS2201	
Bioethics.....	3	Pharmacotherapeutics.....	3	Health Assessment (Lecture	
NURS3300, NURS3301		NURS2200, NURS2201		and Laboratory).....	4
Medical-Surgical Nursing I		Health Assessment		<b>Spring Semester</b>	
(Lecture and Laboratory).....	5	(Lecture and Laboratory).....	4	<b>(Sophomore-level Courses)</b>	
NURS3310, NURS3311		<b>Summer Session II</b>		NURS2004, NURS2114	
Psychiatric Nursing		<b>(Sophomore-level Courses)</b>		Fundamentals of Nursing II	
(Lecture and Laboratory).....	5	NURS2004, NURS2114		(Lecture and Laboratory).....	3
<b>Total.....</b>	<b>16</b>	Fundamentals of Nursing II		NURS2210	
		(Lecture and Laboratory).....	3	Pathophysiology.....	3
		NURS2007		NURS3310, NURS3311	
		Pharmacotherapeutics.....	3	Psychiatric Nursing	
		NURS2210		(Lecture and Laboratory).....	5
		Pathophysiology.....	3		

## Summer Semester Credits

### (Junior-level Courses)

NURS3209	
Bioethics*	3
NURS3300, NURS3301	
Medical-Surgical Nursing I (Lecture and Laboratory)	5

### Fall Semester

#### (Junior-level Courses)

NURS3208	
Introduction to Health Care Economics*	3
NURS3320, NURS3321	
Women's Health Nursing (Lecture and Laboratory)	5
NURS3340, NURS3341	
Nursing Care of the Child and Family (Lecture and Laboratory)	5

### Spring Semester

#### (Senior-level Courses)

NURS4410, NURS4411	
Community Health Nursing (Lecture and Laboratory)	5
NURS4420	
Health Care Management	3
NURS4430	
Nursing Research	3

### Summer Semester

#### (Senior-level Courses)

NURS4440, NURS4441	
Medical-Surgical Nursing II (Lecture and Laboratory)	8
NURS4460	
Preparation for Success	1

## Bachelor of Science in Nursing Degree (R.N. to B.S.N. to M.S.N.)

This program is designed to allow R.N.s who have a diploma or associate degree in nursing to earn first a B.S.N. and then an M.S.N. Half of the nursing credits for the B.S.N. will be accepted from the student's diploma or associate degree program. The other 30 nursing credits are taken at FDU. R.N. students also can transfer up to 35 of the 68 arts and science credits that make up the 120-credit B.S.N. degree.

This B.S.N. includes two advanced-placement courses, giving B.S.N. graduates advanced standing as they begin the M.S.N. portion of this career mobility track.

The R.N. to B.S.N. curriculum is outlined below as a three-year, part-time evening program. It also can be completed full-time in five semesters. Depending on the arts and science courses that were transferred, the non-nursing courses taken at FDU will vary from student to student. See the *Graduate Studies Bulletin* for the M.S.N. curriculum plan.

### Sample Part-time Sequence

#### First Year

CSCI1105		Credits
Survey of Computers and Computer Software		3
NURS3371		
The Professional Nurse in the 21st Century		3
NURS6620		
Advanced Health Assessment Theory		2
NURS6621		
Advanced Health Assessment Practicum		2
NURS7702		
Advanced Pathophysiology		3
PHED4436		
CPR and Emergency First Aid		2
UNIV2001		
Cross-cultural Perspectives		3
Communication/Speech Elective		3
Free Elective		3

#### Second Year

NURS3208	
Introduction to Health Care Economics	3
NURS3209	
Bioethics	3
NURS4420	
Health Care Management	3
NURS6600	
Introduction to Advanced Nursing: Philosophies and Theories	3
Art Elective	3
History Elective	3
Free Elective	3

#### Third Year

NURS4410	
Community Health Nursing	5
NURS4411	
Community Health Nursing Laboratory	0
NURS4430	
Nursing Research	3
PSYC2201	
Statistics	3

#### UNIV2002

Global Issues	3
Elective	3
Literature Elective	3
Nursing Elective	3

### Accelerated Program with Professional Schools

University College has combined-degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less time than the two degrees normally would require separately. The program includes the B.S./D.P.T. (Doctor of Physical Therapy) with Rutgers School of Health Professions, Newark (only offered through the Henry P. Becton School of Nursing and Allied Health).

\*If not completed as a prerequisite.

# Physical Education and Health • Political Science

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Physical Education and Health

### *Department of Physical Education*

There is no physical education major. The University does encourage student participation in those physical activities that have social significance and allow for lifetime participation and interest. With this philosophy in mind, the emphasis in the physical education courses is on those activities that have enduring value.

All students in the first or second semester in the University College liberal arts curriculum are required to take one semester of physical education for 1 credit.

The tuition paid for this credit does not cover special fees for use of outside facilities. Physical education courses may be taken as free electives.

## Political Science Major (B.A.)

### *School of Criminal Justice, Political Science and International Studies*

Fairleigh Dickinson University's New Jersey Metropolitan Campus serves as an excellent venue for students studying political science — an intriguing discipline that dates back to the philosophical reflections of Socrates, Plato and Aristotle who critically examined the role of government, political activity and political behavior within society.

Enjoying partnerships with the United Nations and a wide array of government, public, nonprofit and private sector organizations, the study of political science at the Metropolitan Campus offers students a dynamic, challenging and engaging course of study. Its interdisciplinary curriculum skillfully examines, integrates, analyzes and applies theoretical and philosophical concepts inherent to political systems and behavior that are influenced by an ever-changing, globalized and technologically advanced society. The program places a premium on cultivating student knowledge and understanding, critical thinking and reflection, effective communication, information and technological literacy and ethical and professional behavior.

Specifically, the program examines political systems and behavior from a macro and micro perspective, taking into consideration the impact of globalization and technology that serve to influence political decision-making in areas such as climate change, the environment, migration and immigration, economic policies, economic disparity, hunger, social injustice and inequality, religious extremism, terrorism and exponentially advancing technologies that influence the political landscape, on both the domestic and international stage.

Students studying political science at Fairleigh Dickinson gain valuable knowledge and skills sets that can be applied in a wide range of exciting careers in a wide range of venues, including but not limited to federal, state and local government; law; business; international and nonprofit organizations; education and research; journalism; campaign management and polling; and electoral politics. Other career paths can lead to employment within:

- Government and Military Service
- Intelligence, Information and Analytical Services

- Foreign Service
- Public Relations and Consulting
- Teaching and Research
- International Relations
- Regulatory Agencies
- Nonprofit and Nongovernmental Organizations (NGOs)
- Law and the Administration of Justice
- Journalism and Broadcasting

### **Requirements for the Bachelor of Arts Degree**

#### ***Required Courses***

In addition to fulfilling the liberal arts course requirements within University College: Arts • Sciences • Professional Studies, political science students complete a total of 33 credits within the discipline.

The program's core curriculum provides students a foundation in the study of government, political systems and processes; how political behavior influences public policy; and the various methodologies employed by political scientists to inform and expand their knowledge, understanding and decision making.

The core curriculum consists of the following courses:

- POLS1101 Introduction to Political Science
- POLS2231 Comparative Government and Politics
- POLS2232 Political Thought and Theory
- POLS2251 Foreign Policy of the United States
- POLS3313 Problems in International Politics
- or
- POLS4875 Honors in Political Science

#### ***Political Science Electives (21 credits)***

In addition to fulfilling the requirements for the core curriculum, students are required to complete an additional 21 credits of political science electives. In fulfilling this requirement, students have the opportunity for developing concentrations in the areas of: (1) **American Government and Politics**, (2) **Comparative Government and Politics**, (3) **International Relations** and (4) **Political Thought and Theory**.

##### *American Government and Politics*

- POLS2206 American Minority Politics
- POLS2251 Foreign Policy of the United States
- POLS2253 American Government
- POLS2254 Public Policy

- POLS3311 The American Presidency  
POLS3312 The American Congress  
POLS3324 American Minority Groups  
POLS3331 American Political Thought  
POLS3349 African-American Politics  
POLS3354 Political Parties and Pressure Groups  
POLS4320 Women's America
- Comparative Government and Politics*  
POLS2205 Comparative Legal Systems  
POLS2231 Comparative Government and Politics  
POLS3334 The Soviet Union and Russia  
POLS3338 India and Its Neighbors  
POLS3352 Government and Politics of the Third World  
POLS3361 Politics of East Asia I  
POLS3362 Politics of East Asia II  
POLS3363 Middle East Politics  
POLS3364 Middle East in World Affairs  
POLS3365 Latin America in World Affairs I  
POLS3366 Latin America in World Affairs II  
POLS3367 Africa in World Affairs I  
POLS3368 Africa in World Affairs II  
POLS4460 New Europe  
POLS4463 Political and Economic Challenges in Africa
- International Relations*  
POLS2010 Nationalism and Ethnic Violence  
POLS2204 International Relations  
POLS2211 International Organization  
POLS2212 International Law  
POLS3010 Nationalism and the Modern State  
POLS3313 Problems in International Politics  
POLS3501 Globalization and World Citizenship  
POLS3502 Politics and the Global Economy  
POLS4341 Political Leadership and Changing International Order  
POLS4431 Politics of the Environment  
POLS4462 Terrorism and Political Violence  
POLS4511 U.N. and Human Security
- Political Thought and Theory*  
POLS2232 Political Thought and Theory  
POLS2606 Ethics and Politics  
POLS3011 Human Rights in Global Environment  
POLS3327 Civil Rights and Liberties  
POLS3345 Modern Ideologies  
POLS3355 American Constitutional Law I  
POLS3356 American Constitutional Law II

For further information on the program, please contact Dr. Bamidele A. Ojo, professor of political science, at 201-692-2630; or Dr. Samuel Raphaelides, director, School of Criminal Justice, Political Science and International Studies, and professor of political science and history, at 201-692-2413.

## Legal Studies Minor

The School of Criminal Justice, Political Science and International Studies offers a course of study for students who are interested in the field of jurisprudence and the legal profession. The legal studies program critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. The minor offers students a selection of specifically designed courses, academic advisement, testing strategies and preparation and support services designed to assist students who anticipate applying to law school or graduate school. The program places a strong emphasis on the importance of the undergraduate student's course of study, grade point ratio (GPR) and performance on the Law School Admission Test (LSAT) — all of which play important factors for acceptance to law school. Emphasis is placed on reading comprehension, writing, critical thinking, deduction and analytical reasoning. The course CRIM3890 Legal and Analytical Reasoning places emphasis on these skill sets, which also provides students the opportunity to take practice LSAT exams.

The legal studies minor requires the student to successfully complete 15 credits of the following courses:

- CRIM1120 Introduction to Jurisprudence  
CRIM3319 Courts and Judicial Process  
CRIM3890 Legal and Analytical Reasoning  
POLS1101 Introduction to Political Science

Substitutions are permitted upon approval of the school director.

## Political Science Minor

(For Non-Political Science or Non-International Affairs Majors)

The minor in political science provides students with an essential foundation in the study of political science. Barring approved course substitutions, the following courses are required:

- POLS1101 Introduction to Political Science  
POLS1102 Geography and World Issues

- POLS2204 International Relations  
POLS2231 Comparative Government and Politics  
POLS2253 American Government

## Combined Five-year B.A. in Political Science/M.A. in Criminal Justice Program

For the combined B.A. in political science/M.A. in criminal justice degree program, see page 218.

## Combined Five-year B.A./M.A. in Political Science Program

For the combined B.A./M.A. in political science degree program, see page 219.

## Combined Five-year B.A./M.P.A. Program

For the combined B.A. in political science/M.P.A. degree program, see page 220.

# Psychology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Psychology Major (B.A.)

### School of Psychology

#### Requirements for the Bachelor of Arts Degree

The curriculum and courses, which will serve as preparation for graduate studies required for work in various fields of professional psychology, are designed to help all students develop a scientific understanding of human behavior. This major is particularly useful as an undergraduate background for those who will later enter such professions as law, social work, medicine, nursing and teaching, or for those who will move into managerial positions in industry or government.

The psychology major consists of 39 credits.

The psychology major is required to take the following courses:

PSYC1103	General Psychology
PSYC2201	Statistics
PSYC2204	Child Development
PSYC2234	Social Psychology
PSYC3202	Experimental Psychology
PSYC3315	Abnormal Psychology
PSYC3384	Theories of Personality
PSYC4500	Senior Seminar in Psychology

In addition to completing the basic liberal arts curricular requirements, the major also must take a minimum of 15 credits from any courses in the School other than those listed above. Courses above the 1000 level are recommended as electives.

#### Specialized Tracks Within the Psychology Major

The specialization tracks within psychology consist of 39 credits. Specifically, students must complete the same required courses (24 credits) listed above along with 15 credits in the relevant area of specialization (e.g. social work, criminal justice, management, marketing, etc.). The track-specific requirements are listed on this page and page 201. For further information on these tracks, contact the School of Psychology in Williams Hall on the Metropolitan Campus at (201) 692-2300.

#### Clinical Social Work

The goal of the clinical social work track is to provide students with specialized course work and practical experience that will give them a competitive advantage when seeking employment in the field of social work following graduation or when applying to graduate programs in social work or related fields. The course work in this track introduces students to the profession of clinical social work, which emphasizes a broader approach to the study and treatment of mental health than do other mental health professions (emphasizing the development of a relationship-centered practice with individuals, groups and families). The track also includes an internship experience in which students will have an opportunity to integrate theory and practice through a practical experience that will help them develop skills and witness the difficulties associated with a range of human and social problems. Graduates of this track may end up working in one of many employment settings (for example, a community mental health center, a child welfare agency, a rape crisis center, a substance-abuse treatment center or a head start program, to mention a few).

#### Required Track Courses (15 credits)

PSYC1125	Introduction to Social Service Advocacy*
PSYC3381	Field Placement
PSYC4391	Techniques of Psychotherapy
SOCI3316	The Family: Stability and Dysfunction
SOCI3318	Health and Society: Access and Issues

#### Consumer Psychology

The goal of the consumer psychology track is to provide specialized course work related to the understanding of human responses to product- and service-related information and experiences. This interdisciplinary background will prepare students to work in private industry and nonprofit and government agencies in positions related to marketing research, advertising, designing/evaluating community-wide interventions, public health campaigns, social marketing, etc. This track is also ideal for students interested in graduate programs related to social psychology and industrial and organizational psychology.

#### Required Track Courses (15 credits)

MKTG2120	Principles of Marketing
MKTG3344	Marketing Research
MKTG4272	Consumer Behavior
MKTG4365	Marketing Communications
MKTG4405	Advanced Marketing Management

#### Forensic Psychology

The goal of the undergraduate track in forensic psychology is to provide students with specialized course work at the interface of psychology with the criminal justice system, hopefully preparing students for employment in some capacity that involves working in corrections facilities or in the community with released offenders on probation or parole. The course work in this track affords students an introduction to the dynamic fields of psychology and criminal justice, highlighting the integration of forensic science disciplines with training in psychological theory, methods and the application of psychological principles to specific areas of the legal system. Students enrolled in this track may receive experience at practicum sites to help facilitate the integration of theory and practice and will come away with an interdisciplinary background appropriate for careers in psychology, social work, law enforcement or other criminal justice professions.

#### Required Track Courses (15 credits)

CRIM1101	Introduction to Criminal Justice
CRIM2204	Juvenile Justice and Delinquency
PSYC3317	Psychology and the Law
PSYC3421	Psychology of Criminal Behavior
PSYC	Field Placement
	or
	Elective
	or
	Independent Study
	or
	Co-op in Psychology

#### Mental Health

The goal of the mental health track is to provide specialized course work and practical experience that will make students more attractive to employers (e.g., mental health services, child care, agencies, case-work settings) immediately following graduation or give them a competitive edge when seeking admission to graduate school. The course work will afford an in-depth analysis of psychopathology from a

\*Cross-listed with CRIM1125 Introduction to Social Service Advocacy.



developmental perspective and permit a greater understanding of various therapeutic approaches. At the same time, students receive “hands-on” experience at practicum sites of their choice to help facilitate the integration of theory and practice.

### Required Track Courses (15 credits)

PSYC2126	The Interview
PSYC3305	Adolescent Growth and Development or
PSYC3306	Psychology of Aging
PSYC3381	Field Placement
PSYC3393	Child Behavior Disorders
PSYC4376	Advanced Abnormal Psychology or
PSYC4391	Techniques of Psychotherapy

### Organizational Behavior/Human Resources

The goal of the organizational behavior/human resources track is to provide students with specialized course work in organizational processes and decision-making related to personnel selection, training and management. This interdisciplinary background will prepare students to work in private industry, nonprofit and government agencies in positions related to human resources and/or management consulting. This track is also ideal for students interested in graduate programs related to industrial and organizational psychology.

### Required Track Courses (15 credits)

MGMT2600	Organizational Behavior
MGMT3700	Human Resources Management
MGMT3710	Strategic Staffing
MGMT3720	Training, Development and Performance Management
MGMT4730	Strategic HRM

### Minors

#### Clinical Social Work Minor

(For Non-Psychology Majors)

A minor in clinical social work for non-psychology majors consists of 15 credits beyond the core.

#### Required Major Courses (15 credits)

PSYC1125	Introduction to Social Service Advocacy*.....	3
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\*Cross-listed with CRIM1125 Introduction to Social Service Advocacy.

PSYC3381	Field Placement.....	3
PSYC4391	Techniques of Psychotherapy.....	3
SOCI3316	The Family: Stability and Dysfunction.....	3
SOCI3318	Health and Society: Access and Issues.....	3
Students who are majoring in psychology are not permitted to enroll in this minor. Psychology majors may elect to complete the clinical social work track within their major and must complete a minor in another area.		

#### Forensic Psychology Minor

(For Non-Psychology Majors)

A minor in forensic psychology for non-psychology majors consists of 15 credits beyond the core.

#### One Required Foundation Course

PSYC1103	General Psychology.....	3
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#### Two Required Major Courses (6 credits) from the following:

PSYC2201	Statistics.....	3
PSYC2204	Child Development.....	3
PSYC2234	Social Psychology.....	3
PSYC3202	Experimental Psychology*.....	3
PSYC3315	Abnormal Psychology.....	3
PSYC3384	Theories of Personality.....	3

#### Two Forensic Psychology Track Courses (6 credits) from the following:

PSYC3305	Adolescent Growth and Development.....	3
PSYC3317	Psychology and the Law.....	3
PSYC3319	The World of the Psychopath or	
Approved CRIM Course.....		3
PSYC3421	Psychology of Criminal Behavior**.....	3

\*Prerequisite: PSYC2201 Statistics or equivalent in major (e.g. DSCI2150 Business Statistics).

\*\*Prerequisite: PSYC3315 Abnormal Psychology.

#### Psychology Minor

(For Non-Psychology Majors)

A minor in psychology for non-psychology majors consists of 15 credits beyond the core.

#### One Required Foundation Course

PSYC1103	General Psychology.....	3
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#### Three Required Major Courses (9 credits) from the following:

PSYC2201	Statistics.....	3
PSYC2204	Child Development.....	3
PSYC2234	Social Psychology.....	3
PSYC3202	Experimental Psychology*.....	3
PSYC3315	Abnormal Psychology.....	3
PSYC3384	Theories of Personality.....	3

#### One Psychology Elective (3 credits)

#### B.A. in Psychology/ M.A. in Forensic Psychology Five-year Program

For details on this combined degree program, see page 221.

#### B.A. in Psychology/ M.A. in General/Theoretical Psychology Five-year Program

The School also offers a five-year B.A. in psychology/M.A. in general/theoretical psychology program. For more information, see page 222.

#### B.A. in Psychology/ Master of Social Work Five-year Program

(with New York University)

For details on this combined degree program, see page 224.

# Radiography • Radiologic Technology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Radiography Major (A.S.)

### Henry P. Becton School of Nursing and Allied Health

Radiology is a health care discipline that utilizes ionizing radiation for diagnosis of disease. The radiographer, a person who produces images of the human body for diagnostic purposes, is under the supervision of a physician.

The course of study to become a radiographer is an intensive, 24-month education that results in an Associate in Science degree in radiography with a **Certificate in Radiography**. It is designed for those who wish to learn the basic and specialized area of radiologic technology.

Students must apply to and be accepted by the Valley Hospital School of Radiology, Ridgewood, N.J., before entering the FDU radiology program. The prerequisites for the radiology program are successful completion of Human Anatomy and Physiology I and II with labs (8 credits).

### Requirements for the Associate in Science Degree

<b>1st Semester</b>	Credits
RADT1101	
Introduction to Radiography and Protection.....	3
RADT1105	
Radiographic Procedures I.....	4
RADT1110	
Clinical Practicum I.....	1
RADT1131	
Principles of Radiographic Exposure I.....	3
RADT1150	
Fundamentals of Patient Care.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	15

### Winter Session I

RADT1120	
Clinical Practicum II.....	1

### 2nd Semester

ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1105	
College Algebra.....	4
RADT1150	
Clinical Practicum III.....	2

	Credits
RADT1135	
Radiographic Procedures II.....	4
RADT2251	
Advanced Principles of Radiographic Exposure.....	3
UNIV1002	
Preparing for Professional Life.....	1
Total.....	17

### Summer Session I

ENWR1002	
Composition II: Research and Argument.....	3
RADT1140	
Clinical Practicum IV.....	4
Total.....	7

### Second Year

#### 3rd Semester

CSCI1105	
Survey of Computers and Computer Software.....	3
PHYS1114	
Physics for Radiography.....	3
RADT2250	
Clinical Practicum V.....	2
RADT2252	
Radiation Biology and Safety.....	2
RADT2255	
Radiographic Procedures III.....	4
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	17

#### 4th Semester

PSYC1105	
General Psychology.....	3
RADT2254	
Radiographic Imaging Equipment and Quality Management.....	2
RADT2270	
Clinical Practicum VII.....	2
RADT2271	
Radiographic Pathology.....	2
RADT2275	
Radiographic Procedures IV.....	4
UNIV2002	
Global Issues.....	3
Total.....	16

### Summer Session

RADT2280	
Clinical Practicum VIII.....	4

## Radiologic Technology Major (B.S.)

### Henry P. Becton School of Nursing and Allied Health

The Bachelor of Science degree in radiologic technology is an **advanced standing/completion-degree program** designed for the professional development of registered radiographers. The program's objectives are to provide educational opportunities for radiographers who have graduated from accredited programs with certificates/associate degrees and are certified/licensed to practice. The program also will provide career mobility and educational articulation for these students.

Registered radiographers who are graduates from an accredited two-year, hospital-based program may receive up to 54 transfer credits toward the Bachelor of Science degree, depending on the evaluation of the hospital training transcript. Graduates from an associate degree program may receive up to 60 transfer credits. Additional transfer credits may be granted for courses taken at accredited collegiate institutions.

The curriculum is interdisciplinary in structure and students may take courses on a part-time or full-time basis.

### Requirements for the Bachelor of Science Degree

#### Requirements for the B.S. in Radiologic Technology for Registered Radiographers

In addition to the 54 transfer credits, the following courses need to be completed.

#### Core Requirements (46 credits)

##### Foundation Courses (34 credits)

	Credits
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH1107	
Precalculus.....	4
MEDT1130	
Bioethics.....	4

	Credits
PSYC1103	
General Psychology.....	3
PSYC2201	
Statistics.....	3
SPAN1111	
Spanish for Health Personnel.....	3
SPCH1155	
Public Speaking.....	3
English Literature Elective.....	3
History Elective.....	3

### **Major Requirements (30 credits)**

MEDT4301	
American Health Care Systems.....	3
MEDT4302	
Health Care Law and Policy.....	3
MGMT2600	
Organization Behavior.....	3
MGMT3700	
Human Resources Management.....	3
NURS2210	
Pathophysiology.....	3
NURS3208	
Introduction to Health Care	
Economics.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3
RADT4002	
Advanced Radiological Science I.....	3
RADT4003	
Advanced Radiological Science II.....	3

### **University Requirements (8 credits)**

UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

### **Requirements for the B.S. in Radiologic Technology for Those with an Associate in Science Degree**

In addition to the 60 transfer credits, the following courses need to be completed.

### **Core Requirements (36 credits)**

#### **General Education Courses (28 credits)**

CSCI1105	
Survey of Computers and	
Computer Software.....	3
MATH1107	
Precalculus.....	4

	Credits
PSYC1103	
General Psychology.....	3
PSYC2201	
Statistics.....	3
SPAN1111	
Spanish for Health Personnel.....	3
SPCH1155	
Public Speaking.....	3
English Literature Elective.....	3

### **Major Requirements (33 credits)**

MEDT1130	
Bioethics.....	3
MEDT4301	
American Health Care Systems	
.....	3
MEDT4302	
Health Care Law and Policy.....	3
MGMT2600	
Organizational Behavior.....	3
MGMT3700	
Human Resources Management.....	3
NURS2210	
Pathophysiology.....	3
NURS3208	
Introduction to Health Care	
Economics.....	3
NURS4420	
Health Care Management.....	3
NURS4430	
Nursing Research.....	3
RADT4002	
Advanced Radiological Science I.....	3
RADT4003	
Advanced Radiological Science II.....	3

### **University Requirements (6 credits)**

UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

## **Science Major (B.S.)**

### **School of Natural Sciences**

Students seeking a baccalaureate degree, with a thorough grounding in the sciences, and desiring choice should consider the Bachelor of Science degree in science. The program is multidisciplinary, offering students maximum flexibility. The study of mathematics, for example, may be adjusted to meet the students' academic objectives. The curriculum can meet the entrance requirements for medical or dental school. Students must have a grade of C- or higher in all major course work.

The School of Natural Sciences has a strict "C-gate" policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

This applies to both science and non-science majors. Students must have a C- or higher in BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; ENVR1111, ENVR1112 Oceanography; and MBIO1209 Introduction to Marine Biology to take a 2000- or higher-level science course.

### **Requirements for the Bachelor of Science Degree**

#### **Required Courses**

	Credits
BIOL1251	
General Biology I.....	3
BIOL1252	
General Biology II.....	3
BIOL1253	
Laboratory: General Biology I.....	1
BIOL1254	
Laboratory: General Biology II.....	1
BIOL2300	
Experimental Design.....	3

# Spanish Language and Culture

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus for Professional and International Studies

	Credits
BIOL4405	
Ethics in Science.....	3
CHEM1201	
General Chemistry I.....	3
CHEM1202	
General Chemistry II.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
ENWR1002	
Composition II: Research and	
Argument.....	3
MATH1107	
Precalculus.....	4
MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2202	
Physics Laboratory II.....	1
PHYS2203	
University Physics I.....	3
PHYS2204	
University Physics II.....	3
SPCH	
Oral Communication.....	3
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
Mathematics Elective.....	3
Total.....	62

## Distribution Requirements

	Credits
Science concentration:	
Upper-division courses in a single	
concentration area of science	
(science other than physics,	
chemistry or biological sciences	
require the director's approval).....	16
Science electives:	
Upper-division courses in any area	
of science outside the concentration.....	12
Speech Course.....	3
Humanities Courses*.....	6
Social and Behavioral Sciences Elective**.....	3
Degree credit will not be given for courses	
that are prerequisites to MATH1201	
Calculus I.....	18
Total.....	58
Total credits for degree are 120.	

## Science Minor

(For Non-Science Majors)

Required 16-credit minor.

BIOL1251, BIOL1253	
General Biology I	
(Lecture and Laboratory).....	4
BIOL1252, BIOL1254	
General Biology II	
(Lecture and Laboratory).....	4
CHEM1201, CHEM1203	
General Chemistry I***	
(Lecture and Laboratory).....	4
CHEM1202, CHEM1204	
General Chemistry II***	
(Lecture and Laboratory).....	4

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1155 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World. Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI at the 2000-level or above.

\*\*5 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

\*\*\*Must be taken in sequence.

# Spanish Language and Culture Major (B.A.)

School of the Humanities

## Requirements for the Bachelor of Arts Degree

The school offers an undergraduate major in Spanish language and culture.

Students must enter the major at the SPAN2103 level or higher (elementary-level Spanish courses count for general education requirements or free electives). Students majoring in Spanish are required to complete 36 credits in a combination of Spanish and culture courses. A minimum of 24 credits chosen from SPAN3000–4000 is required.

Language majors are encouraged to spend a semester or a summer abroad at an institution approved by the University.

The following courses are required for the major:

### Major Requirements (36 credits)

#### Required Major Courses (24 credits)

	Credits
SPAN3301	
Advanced Conversation in Spanish.....	3
SPAN3435	
The Modern Spanish-American	
Short Story.....	3
SPAN3439	
Latin-American Culture and	
Civilization.....	3
SPAN3454	
Introduction to Latin-American	
Literature.....	3
SPAN3455	
Introduction to Spanish Literature.....	3
SPAN3456	
Spanish Culture and Civilization.....	3
SPAN4437	
Advanced Composition in Spanish.....	3
SPAN4440	
The Hispanic Novel: From	
Cervantes to García Márquez.....	3

## Recommended Electives (12 credits)

	Credits
LANG3321	
Linguistics: Origin of Languages.....	3
LANG3322	
Latin-American Women Authors.....	3
SPAN3304	
Spanish for Careers.....	3
SPAN4235	
Latin-American Media and Film.....	3
SPAN4259	
Spanish Linguistics.....	3

## Spanish Language and Culture Minor

(For Non-Spanish Majors)

Non-Spanish majors may complete a minor in Spanish language and culture by completing the following 15 credits:

SPAN1101, SPAN1102	
Elementary Spanish I, II.....	6
SPAN2103, SPAN2104	
Intermediate Spanish I, II.....	6
SPAN3301	
Advanced Conversation in Spanish.....	3

For students entering at the intermediate level, the following courses are recommended to fulfill the language and culture requirement:

SPAN2103, SPAN2104	
Intermediate Spanish I, II.....	6
SPAN3301	
Advanced Conversation in Spanish.....	3
SPAN4437	
Advanced Composition in Spanish.....	3
Language and Culture Studies Course.....	3

## Faculty & Staff

### Administration

V.L. Cohen, Interim Dean  
J. Boyd, Interim Associate Dean

### School of Art and Media Studies

J. Boyd, Interim Director; K. Buzzard, Y. Aronson, B. Battistoli, T. LoPonte, M. Roberts, Z. Sun

### Lee Gildart and Oswald Haase

### School of Computer Sciences and Engineering

A. Tan, Director; H. Silver, Deputy Director; M. Lewis, Associate Director; S. Abdelazim, V. Alizadeh, M. Azarderakhsh, W. Byrne, A. Casti, Z. Chen, W. Choi, M. Farag, S.R. Huddy, V. Janarthanan, F. Jnaid, Y. Kim, E. Kose, B. Lefkowitz, Z. Mao, K. Mondal, W. Phillips, A.R. Rao, G. Reinish, Y. Tang, A. Vatsa, H. Zhao

### School of Criminal Justice, Political Science and International Studies

S. Raphaelides, Director; P. Reynolds, Assistant Director; D. Evans, E. Garcia, K. Kattelman, J. Kenny, B. Ojo, E. Panuccio, N. Sachs

### Peter Sammartino School of Education

M. Singer, Interim Director; L. Ray, Deputy Director; J. Bornstein, M. Farrell, N. Hansen, E. Hellmann, K. Joshi, C. Karpinski, L. Meskin, T. Montani, L. Sanchez Wall, K. Spence, S. Suh, R. Westbrook

### School of the Humanities

J. Boyd, Director; J. Gifford, F. Ingledew, M. Pitts, C. Rasmussen, J. Scorza, C. Shanafelt, A. Velásquez, J. Wagner, L. Winters, W. Zimmerle

### School of Natural Sciences

J. Dougherty, Co-director; M. McClary, Co-director; A. Benzecry, G. Dorata, I. Isquith, I. Kumar, M. Leonida, R. Lo Pinto, A. Murphy, G. Nandikotkur, N. Philips, J. Stout, A. Wallace, M.P. Warunek

### Henry P. Becton School of Nursing and Allied Health

M. Guttman, Director; D. Bruchmann, D. Carrazzone, S. Colon-Cabassa, J. Couper, N. Edwards-Hammond, H. Egbuono, L. Gabriele, C. Garzone-Johnson, E. Graulich, C. Jasko, J. Martin, M. Molloy, T. Moore, A. Owes, S. Palmer, J. Regan-Livingston, M. Rossignol, M. Rubin, A. Sanzari, C. Sfikas, M. Sperling, M. Touw, P. Ukaigwe, M. Vargas, B. Yu

### School of Psychology

R. McGrath, Director; S. Ulrich, Director, Center for Psychological Services; S. Armeli, C. Bergstein, J. Cleveland, A. Eisen, B. Freer, M. Guiney, J. Lachenmeyer, K. Loeb, E. McGlinchey, E. Oak, C. Overup, D. Pogge, R. Prentky, L. Raffaele-Mendez, L. Tiersky, K. Viezel, J. Zibulsky

### Department of Physical Education and Health

C. Liggett, Coordinator

### Programs in Language, Culture and Professional Advancement

M. Mohamad, Director

## Special Programs

A great university must, while retaining the traditional programs at the heart of a modern education, expand beyond them to meet the wide-ranging needs of its students. FDU offers combined degree programs, allowing students to earn undergraduate and graduate degrees in less time than traditional routes; honors programs for students of top academic abilities; overseas campuses where students learn about other cultures while studying their academic disciplines; special degree-granting programs for adult learners; Reserve Officers' Training Corps programs; preprofessional degree options; and internships and cooperative studies offered in conjunction with business and industry, which offer students experience in the working world of their chosen fields.

## Combined Degree Programs

The University, keeping in mind the needs and aspirations of its best students, offers a variety of programs specially tailored to bring out the best in them.

Several programs allow students to combine graduate and undergraduate degrees in less time than it would take if each were to be pursued separately. They include:

### Baccalaureate/Master

- Bachelor of Arts/Master of Public Administration (five years), see page 207;
- Bachelor of Arts or Science/Master of Arts in Teaching combined degree (five years), see page 208;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education (five years), see page 210;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary or Secondary Education and English as a Second Language (five years), see page 213;
- Bachelor of Arts in communication studies/Master of Arts in communication, (accelerated) see page 214;
- Bachelor of Arts in creative writing/Master of Fine Arts in creative writing, see page 215;
- Bachelor of Arts in criminal justice/Master of Arts in criminal justice, see page 215;
- Bachelor of Arts in criminology/Master of Arts in criminal justice, see page 215;
- Bachelor of Arts in film and animation/Master of Arts in animation, see page 216;
- Bachelor of Arts in film and animation/Master of Fine Arts in animation (accelerated), see page 217;
- Bachelor of Arts in history/Master of Public Administration (five years), see page 218;
- Bachelor of Arts in political science/Master of Arts in criminal justice (five years), see page 218;
- Bachelor of Arts in political science/Master of Arts in political science (five years), see page 219;
- Bachelor of Arts in political science/Master of Public Administration (five years), see page 220;
- Bachelor of Arts in psychology/Master of Arts in forensic psychology (five years), see page 221;
- Bachelor of Arts in psychology/Master of Arts in general/theoretical psychology (five years), see page 222;
- Bachelor of Arts in psychology/Master of Arts in industrial/organizational psychology (five years), see page 223;
- Bachelor of Arts in psychology/Master of Social Work with New York University (five years), see page 224;
- Bachelor of Arts in sports administration/Master of Sports Administration (five years), see page 225;
- Bachelor of Science in accounting/Master of Science in accounting (five years), see page 227;
- Bachelor of Science in accounting/Master of Business Administration see page 228;
- Bachelor of Science in biochemistry/Master of Science in applied clinical nutrition with School of Health Sciences and Education, New York Chiropractic College (five years), see page 228;
- Bachelor of Science in biochemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 229;
- Bachelor of Science in biochemistry/Master of Science in cosmetic science (five years), see page 230;
- Bachelor of Science in biology/Master of Science in acupuncture and oriental medicine with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College (five years), see page 232;
- Bachelor of Science in biology/Master of Science in biology (five years), see page 233;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Business Administration in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management, see page 234;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Science in accounting or supply chain management or taxation, see page 234;
- Bachelor of Science in chemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 235;
- Bachelor of Science in chemistry/Master of Science in cosmetic science (five years), see page 237;
- Bachelor of Science in computer science/Master of Science in computer science (five years), see page 238;
- Bachelor of Science in computer science/Master of Science in management information systems (five years), see page 239;
- Bachelor of Science in Electrical Engineering/Master of Science in computer engineering (five years), see page 240;
- Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering (five years), see page 241;
- Bachelor of Science in hotel and restaurant management/Master of Science in hospitality management studies (five years), see page 242;
- Bachelor of Science in information technology/Master of Science in computer science (five years), see page 243.

## Baccalaureate/Doctorate

- Bachelor of Science in biochemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 244;
- Bachelor of Science in biology/Doctor of Chiropractic with Life Chiropractic College West, Logan University, New York Chiropractic College, Palmer College of Chiropractic or University of Western States, (six years, four months), see page 249;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Dental Medicine with Lake Erie College of Osteopathic Medicine School of Dental Medicine (eight years), see page 251;
- Bachelor of Science in biology/Doctor of Dental Medicine with Rutgers School of Dental Medicine, (seven years), see page 252;
- Bachelor of Science in biology/Medical Doctor with Ross University School of Medicine, (eight years), see page 253;
- Bachelor of Science in biology/Medical Doctor with Universidad Autónoma de Guadalajara School of Medicine (seven years), see page 255.
- Bachelor of Science in biology/Doctor of Osteopathic Medicine with Lake Erie College of Osteopathic Medicine (seven years), see page 255;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Osteopathic Medicine with Lake Erie College of Osteopathic Medicine (eight years), see page 255;
- Bachelor of Science in biology/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 257;
- Bachelor of Science in biology/Doctor of Physical Therapy with Rutgers School of Health Professions, (six years), see page 262;
- Bachelor of Science in biology/Doctor of Podiatric Medicine with New York College of Podiatric Medicine (seven years), see page 263;
- Bachelor of Science in biology/Doctor of Veterinary Medicine with Ross University School of Veterinary Medicine, (seven years), see page 264;
- Bachelor of Science in chemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 266.

For more information on the array of accelerated programs available at FDU, please contact your college dean or school director.

Students matriculated into the accelerated five-year programs leading to the B.A./M.P.A., the B.A./M.A. and the B.S./M.S. degrees (except in accounting). The students receive their bachelor's degree upon completion of undergraduate requirements and are moved to a graduate program. Students in these curricula who require matriculation as graduate students may request conferral of the baccalaureate degrees upon completion of 120–125 credits (121 credits for Silberman College of Business) and the B.A. or B.S. requirements. The degree will then be awarded in accordance with normal University procedures. Students electing this option are advised that they may become ineligible for certain benefits upon achieving graduate-student status.

Students matriculated into the five-year programs leading to the M.B.A. (4+1) or M.S. in supply chain management (4+1) or the M.A.T. normally complete their undergraduate programs and receive their baccalaureate degrees before entering the graduate portion of the program.

## B.A./M.P.A.

### Five-year Program

Undergraduates who take a major either in history or in political science may, during their junior year, apply to the Master of Public Administration program offered by the School of Public and Global Affairs.

Students who apply and gain admission to the M.P.A. program take three M.P.A. courses (PADM6602 Budgeting and Finance, PADM6603 Public Policy Administration and PADM6680 Information Technology Management) as free electives.

Besides counting toward the B.A., the credits earned in these three graduate courses will count toward the 39 credits that the M.P.A. requires. For the B.A., all University College general education requirements (pages 128–129) and all requirements pertaining to the undergraduate major (history, page 173; political science, pages 198–199) must be satisfied. For the Metropolitan Campus, go to page 218 for the B.A. in history/M.P.A. combined degree and page 220 for the B.A. in political science/M.P.A. combined degree.

# Combined Degree Programs

B.A. or B.S./M.A.T. QUEST Teacher Preparation

## **B.A. or B.S./M.A.T. QUEST Teacher Preparation Five-year Program**

The QUEST (*QU*ality in *E*ducation, *S*chools and *T*eaching) program is offered by the Peter Sammartino School of Education at the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey.

The program is open to students who wish to be certified to teach at the early childhood (P-3), elementary or secondary-school level in the area of their liberal arts or science major or in English as a Second Language (ESL). All tracks result in the B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T.) degree. See below and pages 63 and 131 for additional information.

Students may select a QUEST program in general education (regular classroom teacher) at the P-3, elementary or secondary level or in English as a Second Language (ESL). QUEST also offers the opportunity to select a dual certification program in early childhood (P-3), elementary (K-6) or secondary (7-12) and Teacher of Students with Disabilities (TSD). Students desiring the dual certification program need to join QUEST in their freshman year.

QUEST also offers the opportunity to select a dual certification program in elementary education (K-6) or secondary education (7-12) with a second certification in English as a Second Language. Students desiring the dual certification program in elementary or secondary education and ESL need to join QUEST in their freshman year. These students will need to complete three courses after their fifth year in the program to finish the ESL certification.

### **QUEST Program**

Students typically enter the program in their freshman year. FDU students and admitted transfer students may enroll in QUEST in their sophomore or junior years, subject to an interview with the QUEST adviser, a review of transcripts and meeting QUEST program admissions and matriculation requirements.

Admission and matriculation in the QUEST program are as follows:

- 60 earned credits;

- CGPR of 3.00 or greater; and
- Pass the new Praxis I – CORE Battery, which consists of three tests in basic skills as follows:

1. Core Academic Skills for Educators: Reading
2. Core Academic Skills for Educators: Writing
3. Core Academic Skills for Educators: Mathematics

Students are required to take and pass the CORE Battery by the end of their sophomore year to continue in the QUEST program. Juniors seeking admission to QUEST must take and pass the CORE Battery during their first semester in the program. All three exams must be passed for matriculation. Students who do not pass all three exams may be restricted from taking education (EDUC) courses. Students may be exempted from the CORE Battery if they meet one of the following alternatives:

- SAT (if taken between April 1, 1995, to February 28, 2016): Reading 560; Mathematics 540
- SAT (if taken on or after March 1, 2016): Reading 610; Mathematics 570
- ACT (if taken on or after August 28, 1989): English 23; Mathematics 23
- If a candidate completed and passed the Pre-professional Skills Test (PPST/Praxis I) prior to June 2014, the School of Education will accept passing scores on those exams to satisfy the basic skills requirement (passing scores on the PPST are as follows: Reading 175, Mathematics 174, Writing 173).

In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools.

Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study.

### **Program Outline**

1. Students must satisfy all general education requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization. Students in the QUEST program must major in a liberal arts/science discipline and will take from 30 to 31 credits in education as free electives as undergraduates. These credits satisfy the requirement for a “minor.” All QUEST students major-

ing in psychology, sociology or humanities are required to have a minor (15-18 credits) in a content area and/or a middle-school content endorsement.

2. Students must continue to meet grade point requirements (3.00) throughout their time in the QUEST program.

3. After 60 earned credit hours, students may be formally matriculated into the QUEST program. To matriculate, a student must have a 3.00 cumulative grade point ratio and a passing score on the CORE Battery exams in reading, writing and mathematics as described on pages 130-131. All three exams must be passed (for all majors and at all grade-certification levels). Students should take the CORE Battery in their freshman or sophomore year. Students who have 60 credits and have not passed all three sections of the CORE Battery will be restricted in the number of education courses they may take until they pass all three exams.

4. Students will be advised when to take their Content Knowledge Praxis II exams. They will also be advised as to the current required exam(s) for the certification sought. The Praxis II exam is needed to obtain New Jersey State certification.

5. At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 graduate credits towards their Master of Arts in Teaching degree (which requires a total of 36 graduate credits — 40 credits for the dual certification program). Students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification and will have at least 23 graduate credits towards the M.A.T. Students may decide to complete the remaining graduate courses leading to an M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without the master's degree. (A master's degree is not required for certification in New Jersey.) A third option would be not to continue in the fifth year in the School of Education.

6. New Jersey teacher certification requires 3 credits in biology, physiology or health. The courses also may be taken to satisfy college core requirements (foundations and disciplinary perspectives) or the liberal arts/science required courses or electives.



# Combined Degree Programs

B.A. or B.S./M.A.T. QUEST Teacher Preparation

7. In order to complete the Master of Arts in Teaching program in five years, students may need to take courses in summer and winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

8. In addition to required courses at the graduate level for the M.A.T. program, students may choose electives from one area of specialization, i.e., English as a Second Language (ESL), special education (up to 6 credits if not in the dual certification program), instructional technology; or they may choose a variety of electives from those available. It is recommended that students seeking two certifications focus their graduate electives in a specific area of certification for their second certificate.

## QUEST Program Sequence

(Note: All students follow the course sequence in years one and two and specialize in early childhood (P-3), elementary, ESL or secondary education in years three, four and five.) Registration in all courses and any substitutions require the adviser's approval. Sequence may vary depending on adviser's recommendation.

Year 1	Credits
EDUC1108	
Seminar in Professional Practice I: The Teacher's Role in School and Community.....	3
EDUC2401	
Field Experience I.....	1
Total.....	4

Year 2	Credits
EDUC2209	
Seminar in Professional Practice II: Teachers as Educational Leaders.....	3
EDUC2402	
Field Experience II.....	1
EDUC3309	
Seminar in Professional Practice III: The Functions of Teaching.....	3
Total.....	7

Notes: (1) Graduate-level courses, marked with asterisks (\*), are taken in years three and four in elementary or secondary specializations for dual undergraduate/graduate credit (maximum 15 credits).

(2) Prerequisites for courses in years three and four: EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3309 Seminar in Professional Practice III: The Functions of Teaching, EDUC2401 Field

Experience I and EDUC2402 Field Experience II.

(3) Refer to *Graduate Studies Bulletin* for graduate course descriptions.

(4) Basic course sequence in years two, three and four may vary slightly depending upon individual students.

## Early Childhood (P-3) Specialization

Year 3	Credits
EDUC3403	
Field Experience III.....	2
EDUC6818	
Language Development and Literacy I*.....	3
EDUC6819	
Language Development and Literacy II*.....	3
EDUC6820	
Problem-based Strategies for Elementary Mathematics*.....	3
Total.....	11

Year 4	Credits
EDUC3404	
Field Experience IV: Applied Field Research.....	2
EDUC6852	
Curriculum Development and Assessment for the Pre-school to Third-grade Classroom*.....	3
EDUC6853	
Family and Community in Education*..	3
Total.....	8

Year 5	Credits
EDUC6575	
Apprenticeship Teaching*.....	6
EDUC6583	
Advanced Clinical Practice*.....	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction*.....	3
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders*.....	3
EDUC6825	
Apprenticeship Teaching Seminar*.....	2
EDUC7812	
Final Project*.....	2
EDUC Elective*.....	3
Total.....	21

## Elementary Specialization

Year 3	Credits
EDUC3403	
Field Experience III.....	2
EDUC6818	
Language Development and Literacy I*.....	3

\*Graduate education classes.

	Credits
EDUC6819	
Language Development and Literacy II*.....	3
EDUC6820	
Problem-based Strategies for Elementary Mathematics*.....	3
Total.....	11

## Year 4

EDUC3404	
Field Experience IV: Applied Field Research.....	2
EDUC6893	
Evaluation and Measurement in Education*.....	3
EDUC7763	
Human Relations and Conflict Resolution for Educators*.....	3
Total.....	8

## Year 5

EDUC6575	
Apprenticeship Teaching*.....	6
EDUC6583	
Advanced Clinical Practice*.....	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction*.....	3
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders*.....	3
EDUC6825	
Apprenticeship Teaching Seminar*.....	2
EDUC7812	
Final Project*.....	2
EDUC Elective*.....	3
Total.....	21

## ESL Specialization

### Year 3

EDUC3403	
Field Experience III.....	2
EDUC6565	
Second Language Acquisition: Methods and Curriculum*.....	3
EDUC6654	
Literacy Development for Second-language Learners*.....	3
Total.....	8

### Year 4

EDUC3404	
Field Experience IV: Applied Field Research.....	2
EDUC6574	
Applied Linguistics for Language Teachers*.....	3
EDUC6631	
Assessment in the Second- language Classroom*.....	3

\*Graduate education classes.

# Combined Degree Programs

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

	Credits
EDUC7763	
Human Relations and Conflict Resolution for Educators*	3
Total	11

## Year 5

EDUC6575	
Apprenticeship Teaching*	6
EDUC6583	
Advanced Clinical Practice*	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction*	3
EDUC6661	
The Multicultural Classroom*	3
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders*	3
EDUC6825	
Apprenticeship Teaching Seminar*	2
EDUC7812	
Final Project*	2
Total	21

## Secondary Specialization

### Year 3

EDUC3403	
Field Experience III	2
EDUC6562, EDUC6563, EDUC6566, EDUC6568, EDUC6569, EDUC6570	
Appropriate Methods and Curriculum Courses in Discipline*	3
EDUC6651	
Effective Reading Instruction*	3
Total	8

### Year 4

	Credits
EDUC3404	
Field Experience IV: Applied Field Research	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction*	3
EDUC6893	
Evaluation and Measurement in Education*	3
EDUC7763	
Human Relations and Conflict Resolution for Educators*	3
Total	11

	Credits
Year 5	
EDUC6575	
Apprenticeship Teaching*	6
EDUC6583	
Advanced Clinical Practice*	2
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders*	3
EDUC6825	
Apprenticeship Teaching Seminar*	2
EDUC7812	
Final Project*	2
EDUC Electives*	6
Total	21

Notes: (1) Students who earn their B.A./B.S. degrees at the end of year four are eligible for state teacher certification upon completion of Advanced Clinical Practice, Apprenticeship Teaching and Apprenticeship Teaching Seminar, if all appropriate education prerequisites have been completed (refer to section on certification, pages 63 and 131).

(2) Students are eligible for: the B.A./B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 36 approved graduate credits.

(3) All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.

## B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education Five-year Program

The dual certification in early childhood (P–3), elementary (K–6) or secondary (7–12) and special education is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in early childhood, elementary or secondary and special education. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T) degree. See below and pages 208–210 for additional information.

### Dual Certification Program

This program is open to students who enter as freshmen beginning September 2013 and thereafter. Because the dual certification courses begin in the freshman year, students may not be able to join this program as upperclassmen. Such cases will be evaluated on an individual basis with the program director. In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools. Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study. Students admitted to this select program will function as a cohort for their education courses.

The curriculum is designed to offer the option of discontinuing study in education at any time during the first four years without losing any time or credit toward the liberal arts or science baccalaureate degree.

### Program Outline

Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization.

Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

\*Graduate education classes.

\*Graduate education classes.

# Combined Degree Programs

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 130–131). Students in-terested in the Dual Certification program **must** enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 40 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education – first certificate) and will have at least 26 graduate credits toward the M.A.T. Students may decide to complete the remaining graduate courses leading to an M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without a master's degree. Students must complete the entire program to receive their Teacher of Students with Disabilities (TSD) certification. The state of New Jersey will not issue a TSD certificate as a first certificate. (A master's degree is not required for certification in New Jersey.). A third option would be not to continue in FDU's School of Education.

New Jersey teacher certification requires that 3 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

In order to complete the Dual Certification program in five years, students may need to take courses in summer or winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

## Dual Elementary, Early Childhood, Secondary and Special Education Program Sequence

<b>Year 1</b>	Credits
EDUC1108	
Seminar in Professional Practice I: The Teacher's Role in School and Community.....	3
EDUC2202	
Development of Children with and without Disabilities.....	3
EDUC2401	
Field Experience I.....	1
	Total.....7
<b>Year 2</b>	
EDUC2207	
Introduction to Special Education and Students with Disabilities including Autism Spectrum Disorder.....	3
EDUC2208	
Classroom Management and Positive Behavioral Supports.....	3
EDUC2209	
Seminar in Professional Practice II: Teachers as Educational Leaders.....	3
EDUC2402	
Field Experience II (special education setting – resource room or self contained).....	1
EDUC3309	
Seminar in Professional Practice III: The Functions of Teaching.....	3
	Total.....13

Notes: (1) Graduate-level courses, marked with two asterisks (\*\*), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).

(2) Prerequisites for courses in years three and four are EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community, EDUC2401 Field Experience I, EDUC2402 Field Experience II, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3309 Seminar in Professional Practice Teaching III: The Functions of Teaching and prerequisite special-education courses (EDUC2204 Survey of Students with Special Needs, EDUC2205 Classroom Management and EDUC2206 Foundation of Special Education for dual certification program).

(3) Refer to *Graduate Studies Bulletin* for graduate course descriptions.

## Elementary Specialization (Elementary + TSD)

<b>Year 3</b>	Credits
EDUC3403	
Field Experience III.....	2
EDUC6818	
Language Development and Literacy I** .....	3
EDUC6819	
Language Development and Literacy II**.....	3
EDUC7763	
Human Relations and Conflict Resolution for Educators**.....	3
	Total.....11
<b>Year 4</b>	
EDUC3404	
Field Experience IV: Applied Field Research.....	3
EDUC6792	
Assistive Technology for the Inclusive Classroom**.....	3
EDUC6797	
Multisensory Mathematics Instruction for Students with Disabilities** .....	3
EDUC6820	
Problem-based Strategies for Elementary Mathematics**.....	3
EDUC6893	
Evaluation and Measurement in Education**.....	3
	Total.....15
<b>Year 5</b>	
EDUC6575	
Apprenticeship Teaching**.....	6
EDUC6583	
Advanced Clinical Practice**.....	2
EDUC6747	
Multisensory Reading Instruction for Students with Reading Disabilities** .....	3
EDUC6750	
Teaching in an Inclusive Classroom**....	3
EDUC6792	
Assistive Technology for the Inclusive Classroom**.....	3
EDUC6825	
Apprenticeship Teaching Seminar**.....	2
EDUC7812	
Final Project**.....	2
	Total.....21

Notes: (1) Graduate-level courses, marked with two asterisks (\*\*), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).

# Combined Degree Programs

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

(2) Prerequisites for courses in years three and four are EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community, EDUC2401 Field Experience I, EDUC2402 Field Experience II, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3309 Seminar in Professional Practice Teaching III: The Functions of Teaching and prerequisite special-education courses (EDUC2204 Survey of Students with Special Needs, EDUC2205 Classroom Management and EDUC2206 Foundation of Special Education for dual certification program).

(3) Refer to *Graduate Studies Bulletin* for graduate course descriptions.

## Secondary Specialization (Secondary + TSD)

Year 3	Credits
EDUC3403	
Field Experience III.....	2
EDUC6651	
Effective Reading Instruction.....	3
Appropriate Secondary	
Methodology Course	
(EDUC6500 level).....	3
Total.....	8

Year 4	Credits
EDUC3404	
Field Experience IV: Applied	
Field Research.....	2
EDUC6792	
Assistive Technology for the	
Inclusive Classroom**.....	3
EDUC6797	
Multisensory Mathematics	
Instruction for Students with	
Disabilities**.....	3
EDUC6893	
Evaluation and Measurement in	
Education**.....	3
EDUC7763	
Human Relations and Conflict	
Resolution for Educators**.....	3
Total.....	14

Year 5	Credits
EDUC6575	
Apprenticeship Teaching**.....	6
EDUC6583	
Advanced Clinical Practice**.....	2
EDUC6747	
Multisensory Reading Instruction	
for Students with Reading	
Disabilities**.....	3
EDUC6750	
Teaching in an Inclusive Classroom**.....	3
EDUC6825	
Apprenticeship Teaching Seminar**.....	2
EDUC7812	
Final Project**.....	2
EDUC	
Graduate Elective.....	3
Total.....	21

## P-3 Early Childhood Specialization (Early Childhood + TSD)

Year 3	Credits
EDUC3403	
Field Experience III.....	2
EDUC6818	
Language Development and	
Literacy I**.....	3
EDUC6819	
Language Development and	
Literacy II**.....	3
EDUC6820	
Problem-based Strategies for	
Elementary Mathematics**.....	3
Total.....	11

Year 4	Credits
EDUC3404	
Field Experience IV: Applied	
Field Research.....	2
EDUC6792	
Assistive Technology for the	
Inclusive Classroom**.....	3
EDUC6797	
Multisensory Mathematics	
Instruction for Students with	
Disabilities**.....	3
EDUC6852	
Curriculum Development and	
Assessment for the Pre-school	
to Third-grade Classroom**.....	3
EDUC6853	
Family and Community in	
Education**.....	3
Total.....	14

Year 5	Credits
EDUC6575	
Apprenticeship Teaching**.....	6
EDUC6583	
Advanced Clinical Practice**.....	2
EDUC6747	
Multisensory Reading Instruction	
for Students with Reading	
Disabilities**.....	3
EDUC6750	
Teaching in an Inclusive Classroom**.....	3
EDUC6795	
Education of Students with	
Moderate to Severe Disabilities**.....	3
EDUC6825	
Apprenticeship Teaching Seminar**.....	2
EDUC7812	
Final Project**.....	2
Total.....	21

Notes: (1) Students who earn their B.A. or B.S. degrees at the end of year four are eligible for state teacher certification upon completion of EDUC6575 Apprenticeship Teaching and EDUC6825 Apprenticeship Teaching Seminar if all appropriate education prerequisites have been completed (refer to section on certification, pages 63-64 and 131).

(2) Students are eligible for special education certification upon completion of their B.A. or B.S. degrees and their elementary, early childhood or secondary education certification and completion of the required special education courses. In New Jersey, special education certification will not be given without an accompanying general education (elementary, early childhood or secondary) certification.

(3) Students are eligible for B.A. or B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 40 approved graduate credits. Please note that some undergraduate majors such as mathematics, biology and chemistry may require more than 120 credits for the B.A. or B.S.

(4) All candidates starting clinical practice (student teaching) in academic year 2018-2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.

# Combined Degree Programs

B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language

## **B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language Five-year Program**

The dual certification in elementary or secondary and English as a Second Language (ESL) is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in elementary or secondary schools and ESL settings. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T) degree. See below and pages 208–210 for additional information.

### **Program Outline**

Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization.

Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 130–131).

Students interested in the Dual Certification program **must** enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 36 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education – first certificate) and will have earned at least 36 graduate credits toward the M.A.T., earning the M.A.T. degree. Students must complete the entire program to receive their English as a Second Language (ESL) Certification. This program requires three additional courses

to be completed in addition to the M.A.T., outside the five-year sequence, either in summer, winter or the semesters following the completion of the fifth year. The state of New Jersey will not issue an ESL license without completion of the course work.

New Jersey teacher certification requires that 3 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

### **Elementary or Secondary Education and ESL Program Sequence**

<b>Year 1</b>	Credits
EDUC1108	
Seminar in Professional Practice I: The Teacher's Role in School and Community.....	3
EDUC2401	
Field Experience I.....	1
Total.....	4

<b>Year 2</b>	Credits
EDUC2209	
Seminar in Professional Practice II: Teachers as Educational Leaders.....	3
EDUC2402	
Field Experience II.....	1
EDUC3309	
Seminar in Professional Practice III: The Functions of Teaching.....	3
Total.....	7

### **Elementary Specialization**

<b>Year 3</b>	Credits
EDUC3403	
Field Experience III.....	2
EDUC6818	
Language Development and Literacy I.....	3
EDUC6820	
Problem-based Strategies for Elementary Mathematics.....	3
Total.....	8

<b>Year 4</b>	Credits
EDUC3404	
Field Experience IV: Applied Field Research.....	2
EDUC6654	
Literacy Development for Second-language Learners.....	3
EDUC6893	
Evaluation and Measurement in Education.....	3
EDUC7763	
Human Relations and Conflict Resolution for Educators.....	3
Total.....	11

<b>Year 5</b>	Credits
EDUC6575	
Apprenticeship Teaching.....	6
EDUC6583	
Advanced Clinical Practice.....	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction.....	3
EDUC6661	
The Multicultural Classroom.....	3
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders.....	3
EDUC6825	
Apprenticeship Teaching Seminar.....	2
EDUC7812	
Final Project.....	2
Total.....	21

### **Additional Course Work**

EDUC6565	
Second Language Acquisition: Methods and Curriculum.....	3
EDUC6574	
Applied Linguistics for Language Teachers.....	3
EDUC6631	
Assessment in the Second-language Classroom.....	3
Total.....	9

### **Secondary Specialization**

<b>Year 3</b>	Credits
EDUC3403	
Field Experience III.....	2
EDUC6651	
Effective Reading Instruction or	
EDUC6654	
Literacy Development for Second-language Learners.....	3
Methods in Respective Field Course (EDUC6500 level).....	3
Total.....	8

# Combined Degree Programs

B.A. in Communication Studies/M.A. in Communication

<b>Year 4</b>	Credits
EDUC3404	
Field Experience IV: Applied Field Research (ESL setting).....	2
EDUC6565	
Second Language Acquisition: Methods and Curriculum.....	3
EDUC6893	
Evaluation and Measurement in Education.....	3
EDUC7763	
Human Relations and Conflict Resolution for Educators.....	3
	Total..... 11
<b>Year 5</b>	
EDUC6575	
Apprenticeship Teaching.....	6
EDUC6583	
Advanced Clinical Practice.....	2
EDUC6584	
Computers as a Teacher's Aid: Curriculum and Instruction.....	3
EDUC6661	
The Multicultural Classroom.....	3
EDUC6740	
Introduction to Students with Disabilities and Autistic Spectrum Disorders.....	3
EDUC6825	
Apprenticeship Teaching Seminar.....	2
EDUC7812	
Final Project.....	2
	Total..... 21
<b>Additional Course Work</b>	
EDUC6574	
Applied Linguistics for Language Teachers.....	3
EDUC6631	
Assessment in the Second- language Classroom.....	3
EDUC Graduate Elective.....	3
	Total..... 9

## **B.A. in Communication Studies/M.A. in Communication Accelerated Program**

The accelerated Bachelor of Arts in communication studies/Master of Arts in communication program, offered by Maxwell Becton College of Arts and Sciences at the Florham Campus, allows students to complete both B.A. and M.A. with a combined degree load that is 9 credits less than that of the separate degrees.

By the start of their junior year, students who are interested in pursuing the five-year B.A. in communication studies/M.A. in communication program must: 1) have completed 64 credits of undergraduate course work including COMM2001 Perspectives on Communication Studies, COMM3018 Mass Communication and COMM3019 Global Communication and 2) have a cumulative grade point ratio of 3.00 or higher.

Transfer students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in communication studies or equivalent courses. An applicant's academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the five-year B.A./M.A. program.

By the end of the junior year, students applying for admission to the five-year B.A. in communication studies/M.A. in communication are expected to submit an application, personal statement, unofficial transcript and two letters of recommendation to the M.A. program director.

Applicants for the accelerated program are interviewed by the director of the graduate program.

Upon completion of their senior year, students will have earned a B.A. in communication studies, in the event they are not accepted or choose not to pursue the accelerated program.

### **Requirements for the B.A. in Communication Studies/M.A. in Communication**

Students will complete a total of 141 credits: 120 credits for the Bachelor of Arts and 21 additional credits for the Master of Arts; 9 graduate credits will have been completed as part of the 120 credits toward the B.A.

## **Required Course Sequence**

### **Senior Year – Undergraduate (9 credits)**

The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a B grade or better in each of the three required classes in order to qualify for the graduate year. Failure to earn B grades or better in each required class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in communication studies.

### **Fall of Undergraduate Senior Year**

	Credits
MCOM6001	
Principles and Practices of Communication.....	3

### **Spring of Undergraduate Senior Year**

MCOM6005	
Group Communication and Leadership.....	3
MCOM6006	
Research Methods.....	3

### **Graduate Year (21 credits)**

#### **Summer (3 credits)**

MCOM7002	
International Communication and Culture*	
	or
MCOM Context Course.....	3

#### **Fall (9 credits)**

MCOM6002	
Professional Writing and Editing.....	3
MCOM6003	
Presentation Methods.....	3
MCOM Context Course.....	3

#### **Spring (9 credits)**

MCOM6004	
Executive Lectures.....	3
MCOM6099	
The Capstone Experience: Principles into Practice.....	3
MCOM Context Course.....	3

\*Offered at FDU's Wroxtton College, United Kingdom campus.

# Combined Degree Programs

B.A. in Creative Writing/M.F.A. in Creative Writing

B.A. in Criminal Justice/M.A. in Criminal Justice

B.A. in Criminology/M.A. in Criminal Justice

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## **B.A. in Creative Writing/ M.F.A. in Creative Writing**

The B.A./M.F.A. in creative writing is a uniquely designed accelerated degree that provides outstanding undergraduate students in FDU's creative writing program the opportunity to begin work on their graduate degree as they enter their senior year. After graduating from the B.A. program, students continue in the low-residency M.F.A. program, and may complete their M.F.A. degree within 18 months.

The accelerated B.A./M.F.A. program offers students both a shorter time frame to earn their M.F.A. degree and significant cost savings by applying 12 credits of graduate course work toward undergraduate degree requirements. Scholarships and financial aid are available to eligible students.

Undergraduate creative writing majors at FDU must apply to the accelerated B.A./M.F.A. program during their junior year by submitting a letter of interest in the program and a writing sample to [writingmfa@fdu.edu](mailto:writingmfa@fdu.edu). Applications will be evaluated on the basis of the writing sample and previous undergraduate work in creative writing.

Once accepted, creative writing students complete 12 credits of graduate course work during the senior year (6 credits in the first semester and 6 credits in the second semester), in the genre of their concentration: fiction, creative nonfiction, poetry, literary translation and writing for young adults and children.

For additional information, please contact René Steinke, director, at 973-443-8632 or [writingmfa@fdu.edu](mailto:writingmfa@fdu.edu).

## **B.A. in Criminal Justice/M.A. in Criminal Justice**

The School of Criminal Justice, Political Science and International Studies offers a combined degree program that affords students the opportunity to combine their undergraduate and graduate studies. With the approval of their academic adviser and the program director, students can take up to three designated graduate courses that fulfill the requirements for both undergraduate and graduate degrees, thus accelerating completion of their Master of Arts in criminal justice.

Students opting for the combined degree program must meet the minimum admission requirements for students applying to the graduate program in criminal justice as set forth in the current issue of the *Graduate Studies Bulletin*; the only exception of having obtained their baccalaureate degree.

It is recommended that students interested in the combined degree program declare their candidacy upon successful completion of 64 credits and/or upon entering their junior year; however, no later than having completed 90 undergraduate credits. This affords students the opportunity to collaborate with their adviser in the timely and appropriate selection of undergraduate and graduate courses.

To qualify for the combined program in criminal justice, students must possess and maintain a minimum 3.00 overall cumulative grade point ratio (CGPR), and a 3.25 grade point ratio (GPR) within the criminal justice major. Students in the combined degree program must maintain a minimum 3.00 GPR in the graduate courses for which they have been approved.

## **B.A. in Criminology/M.A. in Criminal Justice**

The B.A. in criminology/M.A. in criminal justice combined degree program offers students the opportunity to combine their undergraduate studies in criminology with graduate studies in criminal justice. With the opportunity to take up to three designated graduate courses that fulfill both undergraduate and graduate requirements, students of this program are able to complete a Master of Arts in criminal justice in five years.

To qualify for the combined program, students must possess a 3.00 grade point ratio after earning 60 credits and apply to the combined program prior to earning 90 credits. Students will also need to submit two letters of recommendation to the director of the graduate criminal justice program.

This combined degree offers students the opportunity to partake in an accelerated master's program at a discounted tuition rate. The program combines the best of both criminology and criminal justice to prepare students for supervisory and leadership positions in law enforcement, courts, corrections, social service, private security, teaching and public policy.

Students will be afforded flexible class schedules and networking opportunities with criminal justice and public policy professionals, as well as credits for internships.

# Combined Degree Programs

B.A. in Film and Animation/M.A. in Animation

## **B.A. in Film and Animation/ M.A. in Animation Accelerated Program**

The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.A. in animation degree that allows students to complete both the bachelor's and master's degrees in animation in five years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program up until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the five-year B.A. in film and animation/M.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.A. program, a grade of B or better is required upon which those credits will be applied to **both** the undergraduate and graduate degrees. If the student receives a grade of B- or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

### **Requirements for the B.A. in Film and Animation/M.A. in Animation**

Students will complete a total of 144 credits: 120 credits for the Bachelor of Arts and 24 additional credits for the Master of Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

### **Graduate Requirements**

#### **Undergraduate Senior Year**

Credits  
ANIM5000 or higher-level courses..... 12

The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a grade of B or better in each of the four graduate-level courses in order to qualify for the graduate year. Failure to earn B grades or better in each graduate-level class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in film and animation.

#### **Graduate Year (3D Animation Concentration) (24 credits)**

ANIM5300  
Storytelling..... 3  
ANIM5400  
Character Design..... 3  
ANIM6100  
Digital Sculpting..... 3  
ANIM6150  
3D Character Texturing..... 3  
ANIM6300  
3D Character Animation..... 3  
ANIM7000  
Advanced 3D Character Animation..... 3

#### **Major Electives**

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

#### **Graduate Year (Video Game Animation Concentration) (24 credits)**

ANIM5400  
Character Design..... 3  
ANIM5500  
Digital 2D Animation..... 3  
ANIM6100  
Digital Sculpting..... 3  
ANIM6400  
3D Animation for Games..... 3  
ANIM6600  
Game Creation..... 3  
ANIM7500  
Advanced Game Creation..... 3

#### **Major Electives**

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

#### **Graduate Year (Visual Effects Concentration) (24 credits)**

Credits  
ANIM5300  
Storytelling..... 3  
ANIM5500  
Digital 2D Animation..... 3  
ANIM5600  
Advanced 3D Layers in After Effects®.. 3  
ANIM5700  
Dynamic Effects and Particle  
Systems in After Effects®..... 3  
ANIM5800  
Compositing in After Effects®..... 3  
ANIM6350  
3D Particle Systems and Effects®..... 3

#### **Major Electives**

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)



# Combined Degree Programs

B.A. in Film and Animation/M.F.A. in Animation

## B.A. in Film and Animation/ M.F.A. in Animation Accelerated Program

The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.F.A. in animation degree that allows students to complete both the bachelor's and Master of Fine Arts degrees in animation in six years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program up until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the six-year B.A. in film and animation/M.F.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D character animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.F.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.F.A. program, a grade of B or better is required upon which those credits will be applied to **both** the undergraduate and graduate degrees. If the student receives a grade of B- or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

### Requirements for the B.A. in Film and Animation/M.F.A. in Animation

Students will complete a total of 168 credits: 120 credits for the Bachelor of Arts and 48 additional credits for the Master of Fine Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

## Graduate Requirements

### Undergraduate Senior Year

Credits  
ANIM5000 or higher-level courses..... 12

The senior undergraduate year of all B.A./M.F.A. students is a qualifying year. Students must earn a grade of B or better in each of the four graduate-level courses in order to qualify for the graduate year. Failure to earn B grades or better in each graduate-level class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in film and animation.

### Graduate Two Years (3D Character Animation Concentration) (48 credits)

ANIM5300  
Storytelling..... 3  
ANIM5400  
Character Design..... 3  
ANIM6100  
Digital Sculpting..... 3  
ANIM6150  
3D Character Texturing..... 3  
ANIM6300  
3D Character Animation..... 3  
ANIM7000  
Advanced 3D Character Animation..... 3  
ANIM7250  
Lip-Syncing..... 3  
ANIM7425  
Motion Capture..... 3  
ANIM7650  
Thesis I..... 3  
ANIM7750  
Thesis II..... 3  
ANIM7850  
Thesis III..... 3  
ANIM7900  
Animation Career Preparation..... 3

### Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

### Graduate Two Years (Video Game Animation Concentration) (24 credits)

ANIM5400  
Character Design..... 3  
ANIM5500  
Digital 2D Animation..... 3  
ANIM6100  
Digital Sculpting..... 3  
ANIM6400  
3D Animation for Games..... 3

Credits

ANIM6600  
Game Creation..... 3  
ANIM7500  
Advanced Game Creation..... 3  
ANIM7525  
Virtual Reality..... 3  
ANIM7600  
Video Game Team Project..... 3  
ANIM7650  
Thesis I..... 3  
ANIM7750  
Thesis II..... 3  
ANIM7850  
Thesis III..... 3  
ANIM7900  
Animation Career Preparation..... 3

### Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

### Graduate Two Years (Visual Effects Concentration) (48 credits)

ANIM5300  
Storytelling..... 3  
ANIM5500  
Digital 2D Animation..... 3  
ANIM5600  
Advanced 3D Layers in After Effects®.. 3  
ANIM5700  
Dynamic Effects and Particle Systems in After Effects®..... 3  
ANIM5800  
Compositing in After Effects®..... 3  
ANIM6350  
3D Particle Systems and Effects®..... 3  
ANIM6700  
Animating Fluids..... 3  
ANIM6805  
Motion Tracking..... 3  
ANIM7650  
Thesis I..... 3  
ANIM7750  
Thesis II..... 3  
ANIM7850  
Thesis III..... 3  
ANIM7900  
Animation Career Preparation..... 3

### Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

# Combined Degree Programs

B.A. in History/M.P.A.

B.A. in Political Science/M.A. in Criminal Justice

## **B.A. in History/M.P.A. Five-year Program**

The B.A. in history/M.P.A. combined degree is offered on the Metropolitan Campus. A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

### **Requirements for the B.A. in History/M.P.A.**

**Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)**

#### **General Education Requirements (47 credits)**

##### **College Competencies (21 credits)**

###### *Written Communication*

Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within the major.

###### *Oral Communication*

A three-credit course related to public speaking and oral presentations, typically a course in speech.

###### *Quantitative Analysis*

A three-credit course related to mathematics and statistics, with applications to everyday problems.

###### *Ethical and Moral Analysis*

A three-credit course that is substantially concerned with ethical theories and questions. For history majors, this course should be HIST2106 Ethical Issues in History.

###### *Scientific Analysis*

A minimum of six credits of laboratory science.

###### *Language and Culture*

This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/EPS credits for nonnative English speakers.

###### *Social and Behavioral Sciences*

Six credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

###### *Art and Humanities*

Six credits of course work in art (visual or performing arts), English literature, history, humanities, philosophy or religion.

## **Liberal Arts Distribution (18 credits)**

### **University Requirements (8 credits)**

Credits

UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

### **Major Requirements (36 credits)**

At least two 1000-level HIST courses; at least three 3000-level HIST courses; either HIST4400 Senior Research Seminar or HIST4401 Honors History; and as many 2000-level courses as required.

### **Minor Elective Courses (15 credits)**

### **Free Elective Courses (13 credits)**

### **Additional Graduate Courses Required for the M.P.A. Degree (39 credits)**

PADM6600	
Public and Nonprofit Management.....	3
PADM6601	
Organization Theory.....	3
PADM6602	
Budgeting and Finance.....	3
PADM6603	
Public Policy Administration.....	3
PADM6604	
Human Resources Management.....	3
PADM6610	
Quantitative Methods for	
Administrators.....	3
PADM6680	
Information Technology Management....	3
PADM6821	
M.P.A. Project Report.....	3
Public Administration Electives.....	15

## **B.A. in Political Science/ M.A. in Criminal Justice Five-year Program**

The accelerated Bachelor of Arts in political science/Master of Arts in criminal justice offered by the School of Criminal Justice, Political Science and International Studies allows students to complete and combine their studies in earning both bachelor's and master's degrees. The student is able to take 9 graduate credits during their senior year toward their free electives.

Students opting for the combined degree program must meet the minimum admissions requirements for students applying for the graduate program as set forth in the *Graduate Studies Bulletin*, the only exception is with those who have obtained their baccalaureate degrees.

It is highly recommended that students expressing interest in the program speak with an adviser in order to maintain proper availability on their check sheets. Students may declare their candidacy toward this program after successfully completing 64 credits but no later than 90 undergraduate credits.

It is imperative for students who plan to declare for this program that they maintain a minimum 3.00 overall cumulative grade point ratio (CGPR) and a 3.25 GPR within the political science major. Students must maintain a 3.00 GPR in the approved graduate courses.

# Combined Degree Programs

B.A. in Political Science/M.A. in Political Science

## B.A. in Political Science/ M.A. in Political Science Five-year Program

A new program, as of the spring 2018 semester, this accelerated combined degree program offers those majoring in political science with the opportunity to also earn their graduate degree in political science.

Students may apply for this program after the successful completion of 64 credits during their junior year. They may begin to take 9 graduate credits during their senior year toward their 120-credit requirement for graduation. An additional 24 graduate credits must be taken to complete the program.

Students who plan to declare for this program are required to maintain a minimum 3.00 overall cumulative grade point ratio (CGPR) and a 3.25 GPR within the political science major. Students must maintain a 3.00 GPR in their approved graduate courses.

### General Education Requirements (53 credits)

#### College Competencies (24 credits)

	Credits
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
ENWR1002	
Composition II: Research and Argument.....	3
Speech and Professional Communication (5 credits)	
Quantitative Analysis (3 credits)	
Math or Technology Statistics (3 credits)	
Ethical and Moral Analysis	
POLS2606	
Ethics and Politics.....	3
Scientific Analysis (6 credits)	

#### Liberal Arts Distribution (21 credits)

Language (3 credits)	
Social and Behavioral Sciences (6 credits)	
POLS1101	
Introduction to Political Science.....	3
POLS2231	
Comparative Government and Politics.....	3
Art and Culture (6 credits)	
Humanities (6 credits)	

#### University Requirements (8 credits)

UNIV1001	
Transitioning to University Life.....	1

	Credits
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

#### Major Requirements (39 credits)

##### Required Major Courses (18 credits)

POLS2232	
Political Thought and Theory.....	3
POLS2251	
Foreign Policy of the United States.....	3
POLS2253	
American Government.....	3
CRIM6015	
Research Methods in Criminal Justice and Criminology.....	3
POLS7820	
Models of Political Systems.....	3
POLS7826	
Politics of Public Safety.....	3

##### Major Electives (21 credits)

#### Minor (15 credits)

##### Free Electives (13 credits)

Total.... 120

#### Master's Curriculum (24 credits)

POLS6800	
Master's Research or Comprehensive Exam.....	3

#### Political Science Graduate Electives (21 credits)

CRIM6010	
U.S. Constitution, Public Policy and Criminal Justice.....	3
CRIM6020	
Statistics and Data Analysis.....	3
CRIM7020	
Ethics, Politics and Justice.....	3
CRIM7025	
Comparative Criminal Justice Systems.....	3
CRIM7030	
Principles of Leadership.....	3
CRIM7080	
Politics and Policies of Criminal Justice.....	3
CRIM7085	
Advanced Internship in Criminal Justice.....	3
HIST6714	
U.S. and the Developing World.....	3
HIST7712	
Constitution: Transition.....	3

	Credits
POLS6682	
Diplomatic History of the U.S.....	3
POLS6711	
Genocide: From an American Perspective.....	3
POLS6753	
American Culture in a Global Perspective.....	3
POLS6871	
U.S.-Latin American Relations.....	3
POLS7810	
Constitution Issues/U.S. Foreign Policy.....	3
POLS7815	
Nationalism and Its Discontents.....	3
POLS7820	
Models of Political Systems.....	3
POLS7821	
Modern Political Theory.....	3
POLS7822	
The Character of Revolutionary Movements.....	3
POLS7825	
Foreign Policy and Diplomacy.....	3
POLS7830	
International Organizations.....	3
POLS7831	
International Law.....	3
POLS7832	
International Problems/Conflict Resolution.....	3
POLS7833	
Modern Warfare/Global Stability.....	3
POLS7834	
Politics of the Global Economy.....	3
POLS7835	
Geography and World Politics.....	3
POLS7851	
Forces and Issues: Middle East.....	3
POLS7853	
The New Europe.....	3
POLS7854	
Changing Eastern Europe.....	3
POLS7863	
Comparative Government: Middle East.....	3
POLS7867	
Political and Economic Challenges: Africa.....	3
POLS7868	
Terrorism and Insurgency.....	3
POLS7871	
The Modern Asian State.....	3
POLS7874	
Latin America: New Challenges.....	3
POLS7875	
Canada, Mexico and U.S.: Perspectives.....	3

Total.... 144

# Combined Degree Programs

B.A. in Political Science/M.P.A.

## **B.A. in Political Science/M.P.A. Five-year Program**

This is a five-year B.A./master's curriculum combining undergraduate studies in political science with graduate studies in public administration. It is offered at the Metropolitan Campus, Teaneck, New Jersey. Students will obtain the B.A. at the end of four years of course work and 120 credits. Students can apply to a five-year program (B.A./M.P.A.) as early as their junior year.

A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

### **Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)**

#### **Requirements for the B.A. in Political Science/M.P.A.**

#### **Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)**

#### **General Education Requirements (47 credits)**

#### **College Competencies (21 credits)**

#### *Written Communication*

Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within the major.

#### *Oral Communication*

A three-credit course related to public speaking and oral presentations, typically a course in speech.

#### *Quantitative Analysis*

A three-credit course related to mathematics and statistics, with applications to everyday problems.

#### *Ethical and Moral Analysis*

A three-credit course that is substantially concerned with ethical theories and questions. For political science majors, this course should be POLS2606 Ethics and Politics.

#### *Scientific Analysis*

A minimum of six credits of laboratory science.

#### *Language and Culture*

This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/EPS credits for nonnative English speakers.

#### *Social and Behavioral Sciences*

This requirement consists of three credits in political science (POLS1101 Introduction to Political Science) and three credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

#### *Art and Humanities*

Six credits of course work in art (visual or performing arts), English literature, humanities, philosophy or religion.

#### **Liberal Arts Distribution (18 credits)**

#### **University Requirements (8 credits)**

	Credits
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

#### **Major Requirements (36 credits)**

#### **Required Major Courses (15 credits)**

POLS2231	
Comparative Government and Politics.....	3
POLS2232	
Political Thought and Theory.....	3
POLS2251	
Foreign Policy of the United States.....	3
POLS2253	
American Government.....	3
POLS4600	
Political Science Seminar	
	or
POLS4875	
Honors in Political Science.....	3

#### **Major Elective Courses (21 credits)**

A minimum of 21 credits (seven POLS courses).

#### **Minor Elective Courses (15 credits)**

#### **Free Elective Courses (13 credits)**

#### **Additional Graduate Courses Required for the M.P.A. Degree (39 credits)**

	Credits
PADM6600	
Public and Nonprofit Management.....	3
PADM6601	
Organization Theory.....	3
PADM6602	
Budgeting and Finance.....	3
PADM6603	
Public Policy Administration.....	3
PADM6604	
Human Resources Management.....	3
PADM6610	
Quantitative Methods for Administrators.....	3
PADM6680	
Information Technology Management...	3
PADM6821	
M.P.A. Project Report.....	3
Public Administration Electives.....	15

#### **M.P.A. Requirements**

For information contact Dr. Paulette Laubsch, academic coordinator for the M.P.A. program, at [plaubsch@fdi.edu](mailto:plaubsch@fdi.edu) or 201-692-6523.

# Combined Degree Programs

B.A. in Psychology/M.A. in Forensic Psychology

## Accelerated Programs in Psychology

The University offers separate and distinct accelerated programs for undergraduate psychology majors at its campuses.

At the Metropolitan Campus, Teaneck, New Jersey, the student may earn a master's degree in forensic psychology (see this page), general/theoretical psychology (see page 222) or a master's degree in social work (see page 224). At the Florham Campus, Madison, New Jersey, there is a program leading to a master's degree in industrial/organizational psychology (see page 223).

## B.A. in Psychology/M.A. in Forensic Psychology Five-year Program

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

### Entrance and Curriculum Requirements for the B.A./M.A. in Forensic Psychology Program

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology (including statistics). Students' academic and work experiences must reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores (for high school students); 2) academic transcripts; 3) a minimum of two letters of recommendation (at least one from a professor/teacher); 4) a personal statement regarding academic and career goals; and 5) for current undergraduate students, a cumulative grade point ratio (GPR) of 3.50. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students begin taking graduate classes in their junior year and remain on "probationary" status until their senior year, when they are officially accepted into the program. This evaluation will be performed by a committee of psychology faculty at the end of each student's fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 3.00 and must not earn more than one C-level grade throughout their graduate course work. Students receiving two or more grades below a B- in graduate courses will not be permitted to continue in the

program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology or a master's thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination may result in dismissal from the program.

### Outline of the Psychology Components of the B.A./M.A. Accelerated Program in Forensic Psychology

#### Psychology (undergraduate) 24 credits

CRIM1101	Introduction to Criminal Justice.....	3
CRIM2204	Juvenile Justice and Delinquency.....	3
PSYC1103	General Psychology.....	3
PSYC3202	Experimental Psychology.....	3
PSYC4500	Senior Seminar in Psychology.....	3
PSYC	Field Placement, Independent Study or Co-op in Psychology.....	3
	Psychology or Criminal Justice Elective*.....	3
	Psychology Elective.....	3

#### Psychology (graduate) 36 credits

PSYC6109	Social Psychological Applications.....	3
PSYC6111	Theories of Personality.....	3
PSYC6114	Psychopathology.....	3
PSYC6121	Statistics and Research Methods.....	3
PSYC6130	Interviewing Techniques.....	3
PSYC6227	Clinical Practice in Forensic Context.....	3
PSYC6230	Introduction to Forensic Psychology.....	3

\*Psychology/criminal justice elective is satisfied by completion of an approved forensic course. If course was taken at the undergraduate level, the graduate-level course must be substituted by an approved graduate course.

# Combined Degree Programs

B.A. in Psychology/M.A. in General/Theoretical Psychology

	Credits
PSYC6231	
Psychological Bases of Criminal Behavior.....	3
PSYC7230	
Forensic Assessment and Prediction.....	3
PSYC7234	
Ethical Issues in Forensic Practice.....	3
PSYC7235	
Evaluating Criminal Responsibility and Competency.....	3
PSYC7240	
Externship in Forensic Psychology.....	3

## **B.A. in Psychology/M.A. in General/Theoretical Psychology Five-year Program**

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, may allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

### **Entrance and Curriculum Requirements for the B.A./M.A. in General/Theoretical Psychology Program**

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students will be allowed to continue in the graduate component of the five-year degree program upon evaluation of their performance in the undergraduate component of the program; this evaluation will be performed by a committee of psychology faculty at the end of each student's fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 2.75 and must not earn more than two C-level grades throughout their graduate course work. Students receiving two or more grades below a B- in core courses will not be permitted to continue in the program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology or a master's thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the program.

### **Outline of the Psychology Components of the B.A./M.A. Program in General/Theoretical Psychology**

#### **Psychology (undergraduate) 30 credits**

PSYC1103	
General Psychology.....	3
PSYC2201	
Statistics.....	3
PSYC2204	
Child Development.....	3
PSYC2234	
Social Psychology.....	3
PSYC3202	
Experimental Psychology.....	3
PSYC3315	
Abnormal Psychology.....	3
PSYC4500	
Senior Seminar in Psychology.....	3
Psychology Electives.....	9

#### **Psychology (graduate) 36 credits**

##### **Core Courses (6 credits)**

PSYC6121	
Statistics and Research Methods.....	3
PSYC6129	
Research Methods and Psychometrics.....	3

##### **Choose Five Courses From Below (15 credits)**

PSYC6109	
Social Psychological Applications.....	3
PSYC6111	
Theories of Personality.....	3
PSYC6114	
Psychopathology.....	3
PSYC6128	
Computer Applications and Scientific Report Writing.....	3
PSYC7122	
Developmental Psychology.....	3
PSYC7133	
Learning, Cognition and Emotion.....	3
PSYC7130	
Biological Bases of Behavior.....	3

##### **Five Psychology Elective Courses (15 credits)**

PSYC	
Graduate Psychology Electives.....	15

# Combined Degree Programs

B.A. in Psychology/M.A. in Industrial/Organizational Psychology

## B.A. in Psychology/M.A. in Industrial/Organizational Psychology

### Five-year Program

The University offers separate and distinct accelerated programs for undergraduate psychology majors at its campuses.

At the Florham Campus, Madison, New Jersey, there is a program leading to a master's degree in industrial/organizational psychology (see this page).

The department of psychology and counseling at the Florham Campus, Madison, New Jersey, has a program designed to provide an opportunity for students to accelerate their training in psychology. This program, leading to a master's degree in industrial/organizational psychology, allows students to complete the typical B.A./M.A. course sequence in five years, rather than the usual six years, of full-time study.

### Entrance and Curriculum Requirements

To apply, students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in psychology. Courses in statistics and industrial psychology must be completed before applying. If students are transferring to the University, they must complete at least 12 credits at Fairleigh Dickinson University before they can apply to the accelerated program. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential will be determined by the graduate Admissions Committee of the department of psychology and counseling on the basis of the following: 1) completed application (available in the department), 2) academic transcripts, 3) a minimum of three letters of recommendation, 4) a résumé indicating prior work and life experience, 5) a personal statement regarding academic and career goals and 6) a personal interview. The decision to accept applicants will be made on the basis of the foregoing data.

### Requirements for Successful Completion of Graduate Component of Accelerated Degree Programs

Students will be allowed to continue in the graduate component of the accelerated degree programs upon evaluation of

performance in the undergraduate and graduate components of their particular programs. This evaluation will be performed by a committee of psychology faculty at the end of the students' fourth year. With regard to credits earned in graduate courses, students are required to maintain an overall grade point ratio of 3.00 and must not earn more than one C-level grade throughout graduate course work. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology as well as his or her field of specialization is required at the end of these graduate psychology programs. Students are eligible to take this exam during the final semester in which they are enrolled in their graduate courses. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the graduate program.

### Industrial/Organizational Psychology

The specialization in industrial/organizational psychology is designed to equip the graduate with a working knowledge of practices and procedures in applying psychology in a variety of organizational settings. Accordingly, the emphasis is on those aspects of industrial/organizational psychology that are most immediately useful to the student in a working environment.

### Specific Course Requirements for Industrial/Organizational Psychology

Students who complete the combined B.A. and M.A. program must meet all requirements in the following areas: 1) arts and sciences core (48–50 credits); 2) free electives (28–31 credits); 3) psychology, undergraduate, core and electives (26–27 credits); and 4) psychology, graduate, core and electives (36 credits). It is expected that many of the courses in the arts and sciences core and free electives will have been completed by the time students have accumulated the minimum of 60 undergraduate credits needed for admission to the program. Most of the psychology courses, undergraduate and graduate, would be taken in the last three years of the program, with the final year devoted exclusively to graduate courses.

### Outline of the Psychology Components of the B.A./M.A. Program in Industrial/Organizational Psychology

**Psychology (undergraduate) 26 credits**  
Credits

PSYC1201	General Psychology.....	3
PSYC2210	Psychological Statistics.....	4
PSYC2211	Research Methods.....	4
PSYC3005	Abnormal Psychology.....	3
PSYC3510	Social Psychology.....	3
PSYC3322	Industrial Psychology.....	3
PSYC4291	History and Systems of Psychology.....	3
Experimental Elective (to be selected from PSYC3032 Psychological Psychology, PSYC3331 Theories of Learning, PSYC3333 Sensation and Perception, PSYC4130 Behavioral Neuroscience Methods).....		3
The next group of courses are graduate courses for which students would be given dual credit toward their B.A. and M.A. requirements. These courses would be taken during the third, fourth and fifth years.		
COUN7706	Lifestyle and Career Counseling.....	3
PSYC6300	Psychological Statistics.....	3
PSYC6301	Group Dynamics and Team Leadership.....	3
PSYC6302	Organizational Psychology.....	3
PSYC6303	Research Methods and Design.....	3
PSYC6304	Personnel Selection.....	3
PSYC6305	Psychometrics.....	3
PSYC6306	Behavioral Consulting in Organizations.....	3
PSYC6308	Human Resources Development.....	3
PSYC7700	Industrial/Organizational Internship.....	3
<b>Graduate Thesis or Electives 6 credits</b>		
PSYC7803, PSYC7804	Research and Thesis.....	6
or		
PSYC6307	Techniques of Interviewing.....	3
PSYC7745	Leadership Studies.....	3

# Combined Degree Programs

B.A. in Psychology/M.S.W.

## **B.A. in Psychology/M.S.W. Five-year Program**

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

### **Entrance and Curriculum Requirements for the B.A./M.S.W. Program**

This program is offered in cooperation with the Rockland Branch Campus of the New York University (NYU) Silver School of Social Work, located in Sparkill, N.Y. Students earn their B.A. in psychology from Fairleigh Dickinson University and their Master of Social Work (M.S.W.) from NYU. Students can enter this program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the B.A./M.S.W. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. Admission to this program is on the basis of the foregoing data and a personal interview. Current undergraduate students can apply for admission to this program only after completing 64 credits of undergraduate course work, including no less than 18 credits in psychology. In addition, current undergraduate students must have a cumulative grade point ratio (CGPR) of at least 3.00 and a psychology grade point ratio of at least 3.25 in order to be considered for admission to this program (and to maintain matriculation in this program).

Students will be allowed to continue in the graduate portion of this five-year degree program at the Rockland Branch Campus of the NYU Silver School of Social Work upon evaluation of their performance in the undergraduate portion

of the program at FDU; this evaluation will be performed by a committee of psychology faculty from FDU and NYU in the middle of each student's fourth year.

Concerning graduate course work, students will be required to maintain at least a B average with a grade of B or better in each course. Students who fail to maintain at least a B average or better in their graduate course work or who receive a grade below a B in any graduate course may be terminated from the graduate portion of the program. In such cases, students will receive the B.A. in psychology from FDU upon successful completion of their undergraduate curriculum (a total of 120 credits), including up to 13 credits taken at NYU.

### **Outline of the Psychology/Social Work Components of the B.A./M.S.W. Program**

#### **Psychology and Sociology (undergraduate) 39 credits**

	Credits
PSYC1103	
General Psychology.....	3
PSYC2201	
Statistics.....	3
PSYC2204	
Child Development.....	3
PSYC2234	
Social Psychology.....	3
PSYC3202	
Experimental Psychology.....	3
PSYC3315	
Abnormal Psychology.....	3
PSYC3384	
Theories of Personality.....	3
PSYC4500	
Senior Seminar in Psychology.....	3

#### **New York University Graduate Courses (65 credits)**

Social Welfare Programs and Policies I.....	3
Human Behavior in the Social Environment I.....	3
Human Behavior in the Social Environment II.....	3
Human Behavior in the Social Environment III.....	3
Social Work Research I.....	3
Social Work Research II.....	3
Social Work Practice I.....	4
Social Work Practice II.....	3
Social Work Practice III.....	3
Social Work Practice IV.....	3
Clinical Practice with Groups.....	3

	Credits
Advanced Social Policy.....	3
Diversity, Racism, Oppression and Privilege.....	3
Field Instruction II.....	4
Field Instruction III.....	4
Field Instruction IV.....	4
Electives.....	13



# Combined Degree Programs

B.A. in Sports Administration/Master of Sports Administration

## B.A. in Sports Administration/ Master of Sports Administration

### Five-year Program

The five-year program allows qualified students to attain a Bachelor of Arts degree in sports administration and a Master of Sports Administration.

Students in the combined B.A. in sports administration/M.S.A. program must have achieved at least a 3.00 cumulative grade point ratio by the conclusion of their junior year.

### Requirements

#### Metropolitan Campus

##### First Year

1st Semester	Credits
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
INTER1009	
Perspectives on the Individual.....	3
SOCI1101	
Introductory Sustainability.....	3
SPAD2004	
Introduction to Sports Administration.....	3
SUST1000	
Introduction to Sustainability.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

##### 2nd Semester

ENWR1002	
Composition II: Research and Argument.....	3
MATH1101	
Comprehensive Mathematics	
or	
MATH1131	
College Mathematics I	
or	
MATH1141	
Introduction to Mathematical Methods.....	3
MIS1135	
Introduction to Computers	
or	
MIS1045	
Information Technology for Business....	3
PSYC1103	
General Psychology.....	3
SPAD	
Section B* Course.....	3
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

##### Second Year

3rd Semester	Credits
COMM	
Communication Course 2000 or above.....	3
ECON1122	
Microeconomics.....	3
INTER2013	
The American Experience.....	3
SPAD	
Section B* Course.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	15

##### 4th Semester

ECON1121	
Macroeconomics.....	3
INTER2008	
Literature and Culture Seminar.....	3
SPAD4000	
International Sports Administration (every two years)	
or	
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
UNIV2002	
Global Issues.....	3
Total.....	15

##### Third Year

5th Semester	Credits
PHYS1026, PHYS1126	
Earth Physics (Lecture and Laboratory).....	4
SPAD2022	
Facility Management.....	3
SPAD2025	
Global Perspectives in Sports.....	3
SPAD	
Section B* Course.....	3
SPAD	
Section C** Course.....	3
Total.....	16

##### 6th Semester

SPAD2018	
Sports Internship.....	3
SPAD3010	
Job-search Strategies.....	1
SPAD	
Section C** Course.....	3
Free Electives.....	6
Total.....	13

##### Fourth Year

7th Semester	Credits
BUSI3620	
Human Resource Systems.....	3
MSA6701	
Legal Issues in the Domestic and International Sports Industry....	3
MSA6702	
Sports Administration Research and Policy Analysis.....	3
MSA Elective.....	3
Free Elective.....	3
Total.....	15

##### 8th Semester

MSA6602	
Facility Development, Administration and Programming....	3
MSA6603	
Sports Marketing and Promotion.....	3
MSA6703	
Financial Administration in Sports.....	3
SPAD4000	
International Sports Administration (every two years)	
or	
SPAD	
Section B* Course.....	3
Free Elective.....	2
Total.....	14

##### Fifth Year

##### 9th Semester

MSA6601	
Organizational Leadership and Team Development.....	3
MSA6607	
Human Resource Administration in Sports Organizations.....	3
MSA Elective.....	3
Total.....	9

##### 10th Semester

MSA6704	
Internship I or Individual Job-related Project.....	3
MSA6705	
Strategic Planning, Implementation and Evaluation.....	3
MSA Elective.....	3
Total.....	9

Students will be required to complete the following:

\*See Section B page 226.  
\*\*See Section C page 226.

\*See Section B page 226.

# Combined Degree Programs

B.A. in Sports Administration/Master of Sports Administration

## Section B (12 credits)

SPAD2010	Legal Aspects in Sports Administration
SPAD2014	Ethical Issues in Sports
SPAD2015	Team Development
SPAD2017	Safety, First Aid and Prevention of Injury
SPAD2019	Sports, Marketing, Public Relations
SPAD2020	Fundraising in Sports
SPAD3000	Fiscal Concept in Sports
SPAD4001	Sports Internship II
SPAD4500	Coaching Certification

## Section C (9 credits)

ACCT1131	Accounting I
ACCT1132	Accounting II
LAW2276	Business and the Law
SPAD2012	Nutrition and Wellness
SPAD2013	Exercise Science for the Sports Administration Professional
SPAD2016	Stress Management
SPAD2021	Strength and Conditioning
SPAD2030	Ultimate Sports Marketing
SPAD3001	Theory, Philosophy and Principles of Coaching
SPAD3002	Human Kinesiology
SPAD3003	Sports and Society
SPAD3004	Youth Program Administration
SPAD3005	Management in Athletic Training, Athletics and Health

## Free Electives (11 credits)

### Florham Campus

#### First Year

1st Semester	Credits
ENGL1101	
English Composition I.....	3
INTER1009	
Perspectives on the Individual.....	3
PSYC1201	
General Psychology.....	3
SPAD2004	
Introduction to Sports Administration.....	3
SUST1000	
Introduction to Sustainability.....	3
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>

## 2nd Semester

	Credits
ENGL1102	
English Composition II.....	3
MATH1126	
Contemporary Mathematics	
or	
MATH1128	
Mathematical Methods.....	3
MIS1045	
Information Technology for Business....	3
SOCI1201	
Introduction to Sociology.....	3
SPAD2022	
Facility Management.....	3
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

## Second Year

### 3rd Semester

COMM	
Communication Course 2000	
or above.....	3
ECON2001	
Introduction to Microeconomics.....	3
INTER2013	
The American Experience.....	3
SPAD	
Section B* Course.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
<b>Total.....</b>	<b>15</b>

### 4th Semester

ECON2102	
Introduction to Macroeconomics.....	3
SPAD4000	
International Sports Administration	
(every two years)	
or	
SPAD	
Section B* Course.....	3
UNIV2002	
Global Issues.....	3
Foreign Language with Lab**.....	4
Free Elective.....	3
<b>Total.....</b>	<b>16</b>

## Third Year

### 5th Semester

	Credits
BIOL1070, BIOL1071	
Ecosystem and Environmental	
Science (Lecture and Laboratory)....	4
BUSI3620	
Human Resource Systems.....	3
SPAD2025	
Global Perspectives in Sports.....	3
SPAD	
Section B* Courses.....	3
SPAD	
Section C** Course.....	3
<b>Total.....</b>	<b>16</b>

### 6th Semester

SPAD2018	
Sports Internship.....	3
SPAD3010	
Job-search Strategies.....	1
SPAD	
Section C** Course.....	3
Free Electives.....	6
<b>Total.....</b>	<b>13</b>

## Fourth Year

### 7th Semester

MSA6608	
Sports Risk Assessment.....	3
MSA6701	
Legal Issues in the Domestic	
and International Sports Industry....	3
MSA6702	
Sports Administration Research	
and Policy Analysis.....	3
SPAD	
Section C** Course.....	3
Free Elective.....	3
<b>Total.....</b>	<b>15</b>

### 8th Semester

MSA6602	
Facility Development,	
Administration and Programming....	3
MSA6603	
Sports Marketing and Promotions.....	3
MSA6703	
Financial Administration in Sports.....	3
SPAD4000	
International Sports Administration	
(every two years)	
or	
SPAD	
Section B* Course.....	3
Free Elective.....	1
<b>Total.....</b>	<b>13</b>

\*See Section B page 227.

\*\*Only Florham Campus students must complete a foreign language requirement (i.e., Spanish, French, German, Italian, Japanese, sign language, etc.).

\*See Section B page 227.

\*\*See Section C page 227.

# Combined Degree Programs

B.S. in Accounting/M.S. in Accounting

<b>Fifth Year</b>		Credits
<b>9th Semester</b>		
MSA6601		
Organizational Leadership and Team Development.....	3	
MSA6607		
Human Resource Administration in Sports Organizations.....	3	
MSA Elective.....	3	
	Total.....	9

<b>10th Semester</b>		
MSA6704		
Internship I or Individual Job-related Project.....	3	
MSA6705		
Strategic Planning, Implementation and Evaluation.....	3	
MSA Elective.....	3	
	Total.....	9

Students will be required to complete the following:

### Section B (9 credits)

SPAD2010	Legal Aspects in Sports Administration
SPAD2014	Ethical Issues in Sports
SPAD2015	Team Development
SPAD2017	Safety, First Aid and Prevention of Injury
SPAD2019	Sports, Marketing, Public Relations
SPAD2020	Fundraising in Sports
SPAD3000	Fiscal Concept in Sports
SPAD4001	Sports Internship II
SPAD4500	Coaching Certification

### Section C (9 credits)

ACCT1151	Accounting I
ACCT1152	Accounting II
LAW2276	Business and the Law
SPAD2012	Nutrition and Wellness
SPAD2013	Exercise Science for the Sports Administration Professional
SPAD2016	Stress Management
SPAD2021	Strength and Conditioning
SPAD2030	Ultimate Sports Marketing
SPAD3001	Theory, Philosophy and Principles of Coaching
SPAD3002	Human Kinesiology
SPAD3003	Sports and Society
SPAD3004	Youth Program Administration
SPAD3005	Management in Athletic Training, Athletics and Health

### Free Electives (13 credits)

## B.S. in Accounting/ M.S. in Accounting Five-year Program (4+1)

Fairleigh Dickinson University now offers a comprehensive 150-hour program (4+1) leading to the combined Bachelor of Science/Master of Science in accounting degree. This cutting-edge program features state-of-the-art studies in accounting, taxation and law designed to prepare the student for employment in either the public or private accounting sector.

### Entrance and Curriculum Requirements for the B.S./M.S. Program

The B.S./M.S. in accounting program is open to any accounting major admitted to the University. After completing the first 75 credits at the undergraduate level, first semester junior year students are eligible to join the 4+1 in the upper level of the 150-hour B.S./M.S. program if they comply with the requirements for the M.B.A. program.

A personal interview with the director of the program also may be required.

Acceptance into the program takes place in the fifth semester of the undergraduate program. Students will complete the following curriculum requirements, beginning with the sixth semester. During the spring semester following the completion of the undergraduate portion of the program, students commence the graduate portion of the program, which will be completed during the following fall semester.

Admission requirements for the graduate portion of this program apply.

### Components of the B.S./M.S. Program in Accounting

<b>9th Semester</b>	Credits
ACCT6606	
Federal Tax II: Business Entities*.....	3
ACCT6680	
Selected Accounting Topics*.....	3
LAW6657	
Applied Business Law*.....	3
Graduate Accounting Elective*.....	3
Graduate Business Elective*.....	3
	Total.....
	15

<b>10th Semester</b>	Credits
ACCT6682	
Advanced Auditing*.....	3
ACCT6690	
Seminar: Accounting and Auditing Case Studies*.....	3
Graduate Tax/Finance/Accounting Elective*.....	3
Graduate Business Electives*.....	6
	Total.....
	15

\*Designates graduate-level course.

\*Designates graduate-level course.

# Combined Degree Programs

B.S. in Accounting/M.B.A.

B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

## **B.S. in Accounting/M.B.A.**

Fairleigh Dickinson University also offers a combined degree program: B.S. in accounting/M.B.A. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

## **B.S. in Biochemistry/M.S. in Applied Clinical Nutrition Five-year Program**

*(with School of Health Sciences and Education, New York Chiropractic College)*

This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor's degree and a master's degree in five years, one year less than the normal span of six years. The bachelor's degree (B.S. in biochemistry) is awarded by Fairleigh Dickinson University and the master's degree (M.S.) is offered online by the School of Health Sciences and Education of the New York Chiropractic College (NYCC) in Seneca Falls, N.Y.

The NYCC comprehensive professional education focuses on nutrition and its application in prevention and disease management, preparing graduates to practice in a wide range of clinical, consulting and industry settings. The program emphasizes an integrative approach to health care ([www.nycc.edu/AcademicPrograms\\_MSACNprogram.htm](http://www.nycc.edu/AcademicPrograms_MSACNprogram.htm)).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed on pages 235–236, and the first three trimesters at NYCC. A maximum of 32 credits from NYCC may be transferred toward completion of the B.S. degree at FDU.

### **Admission to the Combined Degree Program**

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.00 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/NYCC Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

## **Combined Degree Program Requirements**

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biochemistry and are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and a minimum of C in all science courses.

### **Qualifying for Enrollment at School of Health Sciences and Education of New York Chiropractic College (NYCC)**

Qualified students enrolled in the combined degree program will be guaranteed a seat at NYCC for training in applied clinical nutrition. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at NYCC. Students need to obtain a grade of C or higher in science and math courses;
- A grade point ratio of 3.00 or higher;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at NYCC; and
- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering NYCC must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at NYCC.

### **Prenutrition Curriculum**

Under the provisions of the prenutrition program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biochemistry (preprofessional option). The curriculum is as follows:

# Combined Degree Programs

B.S. in Biochemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

<b>1st Semester</b>	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>

<b>2nd Semester</b>	Credits
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

<b>3rd Semester</b>	Credits
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
<b>Total.....</b>	<b>15</b>

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

<b>4th Semester</b>	Credits
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV2002	
Global Issues.....	3
Humanities Course*.....	3
<b>Total.....</b>	<b>15</b>

<b>5th Semester</b>	Credits
CHEM3241	
Physical Chemistry I.....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
Advanced Mathematics Course**.....	3
Social and Behavioral Sciences Elective***.....	3
<b>Total.....</b>	<b>14</b>

<b>6th Semester</b>	Credits
BIOL6733	
Enzymology.....	3
CHEM3242	
Physical Chemistry II****.....	3
CHEM3244	
Physical Chemistry Laboratory II*****.....	2
Concentration Electives.....	6
<b>Total.....</b>	<b>14</b>

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.  
 \*\*MATH2203 Calculus III or MATH2537 Applied Statistics I.  
 \*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).  
 \*\*\*\*May be replaced by CHEM5251 Analytical Chemistry.  
 \*\*\*\*\*May be replaced by CHEM4254 Instrumental Analysis Laboratory.

## B.S. in Biochemistry/ M.S. in Chemistry with Pharmaceutical Chemistry Concentration

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

### Undergraduate Courses

<b>1st Semester</b>	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>

<b>2nd Semester</b>	Credits
BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

<b>3rd Semester</b>	Credits
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1

# Combined Degree Programs

B.S. in Biochemistry/M.S. in Cosmetic Science

	Credits
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
Total.....	15

## 4th Semester

CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	15

## 5th Semester

CHEM3241	
Physical Chemistry I.....	3
CHEM3245	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
Advanced Mathematics Course***.....	3
Social and Behavioral Sciences	
Elective****.....	3
Total.....	14

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

\*\*\*Selected from MATH2203 Calculus III or MATH2337 Applied Statistics I.

\*\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

## 8th Semester

	Credits
CHEM4233	
Instrumental Analysis.....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4314, CHEM3314	
Inorganic Chemistry II (Lecture and Laboratory).....	3
Pharmaceutical Chemistry Requirement.....	3
Graduate Elective.....	3
Total.....	14

## 9th Semester

Pharmaceutical Chemistry Requirements....	9
Graduate Elective.....	3
Total.....	12

## 10th Semester

Pharmaceutical Chemistry Requirement.....	3
Pharmaceutical Chemistry Electives.....	6
Graduate Elective.....	3
Total.....	12

## Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

## Required Courses (18 credits)

CHEM6673	
Physical Organic Chemistry.....	3
CHEM6754	
Drug-delivery Systems.....	3
CHEM6755	
Medicinal Chemistry.....	3
CHEM6781	
Biochemistry.....	3
CHEM7737	
Chemical Analysis of Pharmaceuticals..	3
and	
A graduate COMM course (6000 level).....	3

## Pharmaceutical Chemistry Electives (6 credits)

MATH6737	
Applied Statistics I.....	3
Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT, MKTG or PHYS course.....	3

A minimum of 121 credits is required for the B.S. degree, and a minimum of an additional 24 credits for the M.S. degree.

## B.S. in Biochemistry/M.S. in Cosmetic Science

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in cosmetic science. This program is designed for students who plan a career in the cosmetic, toiletries or fragrance industries.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

## Undergraduate Courses

### 1st Semester

	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

### 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

### 3rd Semester

CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1

# Combined Degree Programs

B.S. in Biochemistry/M.S. in Cosmetic Science

Credits	<b>7th Semester</b>	Credits	<b>Cosmetic Science Electives (3 credits)</b>
PHYS2203	BIOL2210, BIOL2211		Credits
University Physics I.....3	Genetics (Lecture and Laboratory).....4		CHEM6546
UNIV2001	BIOL4405		Perfumery.....3
Cross-cultural Perspectives.....3	Ethics in Science.....3		CHEM6773
Humanities Course*.....3	CHEM2211		Polymer Chemistry.....3
Total.....15	Inorganic Chemistry I.....3		CHEM6781
<b>4th Semester</b>	CHEM3231, CHEM3232		Biochemistry.....3
CHEM2262	Analytical Chemistry (Lecture		COSC6542
Organic Chemistry II.....3	and Laboratory).....4		Claims Substantiation.....3
CHEM2264	Cosmetic Science Requirement.....3		COSC6549
Organic Chemistry Laboratory II.....2	Total.....17		Color Cosmetics.....3
PHYS2202	<b>8th Semester</b>		
Physics Laboratory II.....1	CHEM4233		A minimum of 120 credits is required for
PHYS2204	Instrumental Analysis.....3		the B.S. degree, and a minimum of an addi-
UNIV2002	CHEM4234		tional 23 credits for the M.A. degree.
Global Issues.....3	Instrumental Analysis Laboratory.....2		
Humanities Course**.....3	CHEM4314, CHEM3314		
Total.....15	Inorganic Chemistry II (Lecture		
<b>5th Semester</b>	and Laboratory).....3		
CHEM3241	Cosmetic Science Requirement.....3		
Physical Chemistry I.....3	Cosmetic Science Elective.....3		
CHEM3243	Total.....14		
Physical Chemistry Laboratory I.....2	<b>9th Semester</b>		
CHEM3281	Cosmetic Science Requirements.....6		
Biochemistry I.....3	Cosmetic Science Elective.....3		
Advanced Mathematics Course***.....3	Graduate Requirement.....3		
Social and Behavioral Sciences	Total.....12		
Elective****.....3	<b>10th Semester</b>		
Total.....14	COSC6548		
<b>6th Semester</b>	Cosmetic Science Laboratory.....2		
BIOL6733	Cosmetic Science Requirements.....6		
Enzymology.....3	Graduate Requirement.....3		
CHEM3242	Total.....11		
Physical Chemistry II.....3	<b>Graduate Course Requirements</b>		
CHEM3244	Students should consult with their advisers		
Physical Chemistry Laboratory II.....2	for course selections and new course offer-		
Speech Course.....3	ings.		
Free Elective.....3	<b>Required Courses (20 credits)</b>		
Total.....14	BIOL6756		
	Dermal Pharmacology and		
	Immunology.....3		
	CHEM6526		
	Product Development.....3		
	CHEM6529		
	Microtoxology and Biochemistry.....3		
	COSC6543		
	Hair-care Raw Materials and		
	Formulations.....3		
	COSC6547		
	Skin-care Raw Materials and		
	Formulations.....3		
	COSC6548		
	Cosmetic Science Laboratory.....2		
	PHYS6753		
	Applied Colloid and Surface Science.....3		

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.  
 \*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.  
 \*\*\*MATH2205 Calculus III or MATH2357 Applied Statistics I.  
 \*\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

# Combined Degree Programs

B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

## B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

### Five-year Program

(with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College)

This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor's degree and a master's degree in five years, one year less than the normal span of six years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the master's degree (M.S.) is from the Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM) of New York Chiropractic College in Seneca Falls, N.Y.

The FLSAOM program provides a comprehensive professional education in acupuncture and oriental medicine that, combined with instruction in biomedicine, prepares graduates to practice in a wide range of clinical settings. The programs emphasize an integrative and holistic approach (<http://aom.nycc.edu>).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first three trimesters at FLSAOM. A maximum of 32 credits from FLSAOM may be transferred toward completion of the B.S. degree at FDU.

### Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.10 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/FLSAOM Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

### Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.10 or higher in all course work and a minimum of C in all science and math courses.

### Qualifying for Enrollment at Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM)

Qualified students enrolled in the combined degree program will be guaranteed a seat at FLSAOM for training in acupuncture and oriental medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at FLSAOM. Students need to obtain a grade of C or higher in science and math courses;
- A grade point ratio of 3.10 or higher;
- Students currently enrolled at FDU

who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at FLSAOM; and

- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering FLSAOM must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at FLSAOM.

### Pre-acupuncture and Oriental Medicine Curriculum

Under the provisions of the pre-acupuncture and oriental medicine program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

1st Semester	Credits
BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory).....	4
CHEM1201 General Chemistry I.....	3
CHEM1203 General Chemistry Laboratory I.....	1
ENWR1001 Composition I: Rhetoric and Inquiry.....	3
UNIV1001 Transitioning to University Life.....	1
Total.....	12

2nd Semester	Credits
BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....	4
CHEM1202 General Chemistry II.....	3
CHEM1204 General Chemistry Laboratory II.....	1
ENWR1002 Composition II: Research and Argument.....	3
UNIV1002 Preparing for Professional Life.....	1
Mathematics Sequence*.....	4
Total.....	16

3rd Semester	Credits
BIOL2250, BIOL2150 Ecology and Field Biology (Lecture and Laboratory) or MBIO1209, MBIO1219 Introduction to Marine Biology (Lecture and Laboratory).....	4
CHEM2261 Organic Chemistry I.....	3
CHEM2263 Organic Chemistry Laboratory I.....	2
Mathematics Sequence*.....	4
Humanities Course**.....	3
Total.....	16

\*In the freshman year, students are required to take either precalculus or calculus. The first-year course must be followed by a second mathematics course in sequence, i.e., Calculus I or Calculus II.

\*\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2258 The Global Art World.



# Combined Degree Programs

B.S. in Biology/M.S. in Biology

4th Semester	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course*.....	3
Total.....	18

5th Semester	Credits
BIOL2237, BIOL2239	
Human Structure and Function I (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

6th Semester	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
General Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

## B.S. in Biology/M.S. in Biology Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biology and a Master of Science degree in biology at the Metropolitan Campus.

### Metropolitan Campus Sequence Undergraduate Courses

1st Semester	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

2nd Semester	Credits
BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
UNIV1002	
Preparing for Professional Life.....	1
Mathematics Sequence*.....	4
Total.....	16

3rd Semester	Credits
BIOL2250, BIOL2150	
Ecology and Field Biology (Lecture and Laboratory)	
or	
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2

\*In the freshman year, students are required to take either precalculus or calculus. The first-year course must be followed by a second mathematics course in sequence (i.e., Calculus I or Calculus II).

	Credits
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

### 4th Semester

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
Humanities Course**.....	3
Total.....	15

### 5th Semester

BIOL2237, BIOL2239	
Human Structure and Function I (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	15

### 6th Semester

CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Biology Elective.....	3
Social and Behavioral Sciences Elective***.....	5
Free Elective.....	0-1
Total.....	16

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.  
\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.  
\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course)

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Combined Degree Programs

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management  
 B.S. in Business Admin. or Entrepreneurship or Finance or Mgt. or Marketing/M.S. in Accounting or Supply Chain Mgt. or Taxation

<b>7th Semester</b>	Credits
BIOL4855, BIOL4856 Molecular Biology Techniques (Lecture and Laboratory).....	3
BIOL4900 Biology Seminar I.....	1
UNIV2002 Global Issues.....	3
Biology Elective.....	3
Graduate Biology Elective.....	3
Free Elective.....	3
Total.....	16

<b>8th Semester</b>	
BIOL4405 Ethics in Science.....	3
BIOL4901 Biology Seminar II.....	1
BIOL6240, BIOL6241 Molecular Cell Biology (Lecture and Laboratory).....	4
Oral Communication Elective.....	3
Graduate Biology Elective.....	3
Total.....	14

<b>9th Semester</b>	
Graduate Biology Electives.....	12

<b>10th Semester</b>	
Graduate Biology Electives.....	10

**Graduate Course Requirements**  
 Students should consult with their advisers for course selections and new course offerings. Students may take any biology (BIOL) course at or above the 5000 level.

**B.S./M.S. Requirements**  
 One hundred forty-two (142) credits are required to earn both the B.S. and M.S. degrees. A minimum of 120 credits is required to earn the B.S. degree and a minimum of 22 additional credits for the M.S. degree.

**B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/ M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management**

Fairleigh Dickinson University offers 45 combined degree programs: B.S. in business administration/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in entrepreneurship/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in finance/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in management/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

**B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/ M.S. in Accounting or Supply Chain Management or Taxation**

Fairleigh Dickinson University offers 13 combined degree programs: B.S. in business administration/M.S. in accounting; B.S. in entrepreneurship/M.S. in accounting; B.S. in finance/M.S. in accounting or supply chain management or taxation; B.S. in management/M.S. in accounting or supply chain management or taxation; and B.S. in marketing/M.S. in accounting or supply chain management or taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

# Combined Degree Programs

Silberman College of Business Five-year (4+1) Programs  
B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

## Silberman College of Business Five-year (4+1) Programs

- B.S. in accounting/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in business administration (with any concentration)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in finance/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in management (leadership/human resources)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in marketing /M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing

## B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

### Florham Campus

### Requirements for the Combined B.S. in Chemistry/M.S. in Chemistry with a Concentration in Pharmaceutical Chemistry

#### First Year (31 credits) Credits

BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
ENGW1001	
College Writing Workshop.....	3
ENGW1002	
Research Writing Workshop.....	3
MATH1203, MATH2202	
Calculus I, II.....	8
UNIV1001	
Transitioning to College Life.....	1

#### Second Year (29 credits)

CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2
PHYS2003, PHYS2013;	
PHYS2004, PHYS2014	
General Physics with Calculus I, II (Lecture and Laboratory).....	8
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Elective.....	3
General Education Electives.....	6

#### Third Year (37 credits) Credits

CHEM2211, CHEM2213	
Inorganic Chemistry (Lecture and Laboratory).....	4
CHEM2221, CHEM2223	
Analytical Chemistry (Lecture and Laboratory).....	4
CHEM3241, CHEM3242	
Physical Chemistry I, II.....	6
CHEM3243, CHEM3244	
Physical Chemistry Laboratory I, II.....	4
CHEM3281, CHEM3389	
Biochemistry (Lecture and Laboratory).....	4
MATH1133	
Applied Statistics.....	3
UNIV2002	
Global Issues.....	3
Foreign Language Courses.....	6
General Education Elective.....	3

#### Fourth Year (31 credits)

CHEM4215	
Advanced Inorganic Chemistry.....	3
CHEM4233, CHEM4234	
Instrumental Analysis (Lecture and Laboratory).....	5
CHEM4401	
Chemistry Seminar.....	1
CHEM6663	
Introduction to Medicinal Chemistry.....	3
CHEM6685	
Pharmacology.....	3
CHEM6781	
Biochemistry.....	3
CHEM7751	
Chemical Kinetics.....	3
Senior Research Elective.....	1
Undergraduate Electives.....	9

#### Fifth Year (24 credits)

CHEM6673	
Physical Organic Chemistry.....	3
CHEM6830–CHEM6833	
Special Topics in Chemistry.....	3
CHEM7735	
Pharmaceutical Analysis.....	3
CHEM7747	
Protein Chemistry*.....	3
CHEM7751	
Chemical Kinetics*.....	3
CHEM7753	
Pharmacokinetics.....	3
Undergraduate Electives.....	6

\*Graduate electives. May be substituted with graduate courses from other departments (not to exceed 6 credits) relevant to the degree. Permission of the department chair is required.

# Combined Degree Programs

B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

## Metropolitan Campus

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

### Recommended Course Sequence

#### 1st Semester Credits

BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1205	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
	Total.....16

#### 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
	Total.....16

#### 3rd Semester

CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*	3
	Total.....15

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2238 The Global Art World.

#### 4th Semester Credits

CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV2002	
Global Issues.....	3
Humanities Course*	3
	Total.....15

#### 5th Semester

CHEM3241	
Physical Chemistry I.....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
Advanced Mathematics Course**	3
Social and Behavioral Sciences	
Elective***	3
	Total.....14

#### 6th Semester

CHEM3242	
Physical Chemistry II.....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
Speech Course.....	3
Science Elective.....	3
Free Elective.....	3
	Total.....14

#### 7th Semester

BIOL4405	
Ethics in Science.....	3
CHEM2211	
Inorganic Chemistry I.....	3
CHEM3231, CHEM3232	
Analytical Chemistry (Lecture and Laboratory).....	4
Pharmaceutical Chemistry Requirements....	6
	Total.....16

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

\*\*Selected from MATH2205 Calculus III or MATH2357 Applied Statistics I.

\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

#### 8th Semester Credits

CHEM4233	
Instrumental Analysis.....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4314, CHEM3314	
Inorganic Chemistry II (Lecture and Laboratory).....	3
Pharmaceutical Chemistry Requirement.....	3
Graduate Elective.....	3
	Total.....14

#### 9th Semester

Pharmaceutical Chemistry Requirements	6
Pharmaceutical Chemistry Elective.....	3
Graduate Elective.....	3
	Total.....12

#### 10th Semester

Pharmaceutical Chemistry Requirement.....	3
Pharmaceutical Chemistry Elective.....	3
Graduate Electives.....	6
	Total.....12

### Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

#### Required Courses (18 credits)

CHEM6673	
Physical Organic Chemistry.....	3
CHEM6754	
Drug-delivery Systems.....	3
CHEM6755	
Medicinal Chemistry.....	3
CHEM6781	
Biochemistry.....	3
CHEM7737	
Chemical Analysis of Pharmaceuticals...3	
Graduate COMM Course (6000 level).....	3

#### Pharmaceutical Chemistry Electives (6 credits)

MATH6737	
Applied Statistics I.....	3
Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT, MKTG or PHYS course.....	3

# Combined Degree Programs

B.S. in Chemistry/M.S. in Cosmetic Science

## B.S. in Chemistry/M.S. in Cosmetic Science Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science in cosmetic science.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Undergraduate students who have successfully completed the required two-semester sequence in organic chemistry and who have an overall grade point ratio of more than 3.00 may apply to one of the combined B.S./M.S. programs described below.

### Undergraduate Courses

#### 1st Semester Credits

BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

#### 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

#### 3rd Semester Credits

CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*.....	3
Total.....	15

#### 4th Semester

CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	15

#### 5th Semester

CHEM3241	
Physical Chemistry I.....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
Advanced Mathematics Course***.....	3
Social and Behavioral Sciences Elective****.....	3
Total.....	14

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.  
\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.  
\*\*\*Selected from MATH2205 Calculus III or MATH2357 Applied Statistics I.  
\*\*\*\*Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

#### 6th Semester Credits

CHEM3242	
Physical Chemistry II.....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
Speech Course.....	3
Cosmetic Science Elective.....	3
Free Elective.....	3
Total.....	14

#### 7th Semester

BIOL4405	
Ethics in Science.....	3
CHEM2211	
Inorganic Chemistry I.....	3
CHEM3231, CHEM3232	
Analytical Chemistry (Lecture and Laboratory).....	4
Cosmetic Science Requirement.....	3
Free Elective.....	3
Total.....	16

#### 8th Semester

CHEM4233	
Instrumental Analysis.....	3
CHEM4234	
Instrumental Analysis Laboratory.....	2
CHEM4314, CHEM3314	
Inorganic Chemistry II (Lecture and Laboratory).....	3
Cosmetic Science Requirement.....	3
Cosmetic Science Elective.....	3
Total.....	14

#### 9th Semester

Cosmetic Science Requirements.....	6
Graduate Requirements.....	6
Total.....	12

#### 10th Semester

COSC6548	
Cosmetic Science Laboratory.....	2
Cosmetic Science Requirements.....	6
Graduate Requirement.....	3
Total.....	11

# Combined Degree Programs

B.S. in Computer Science/M.S. in Computer Science

## Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

### Required Courses (20 credits)

BIOL6756	
Dermal Pharmacology and Immunology.....	3
CHEM6526	
Product Development.....	3
CHEM6529	
Microtoxicology and Biochemistry.....	3
	Credits
COSC6543	
Hair-care Raw Materials and Formulations.....	3
COSC6547	
Skin-care Raw Materials and Formulations.....	3
COSC6548	
Cosmetic Science Laboratory.....	2
PHYS6753	
Applied Colloid and Surface Science.....	3

### Cosmetic Science Electives (3 credits)

CHEM6546	
Perfumery.....	3
CHEM6773	
Polymer Chemistry.....	3
CHEM6781	
Biochemistry.....	3
COSC6542	
Claims Substantiation.....	3
COSC6549	
Color Cosmetics.....	3

A minimum of 120 credits is required for the B.S. degree, and a minimum of an additional 23 credits for the M.S. degree.

## B.S. in Computer Science/ M.S. in Computer Science Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in computer science with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate computer science program.

### B.S./M.S. in Computer Science 120+21=141 credits

#### Computer Science Undergraduate Core Requirements (36 credits) Credits

CSCI1201	
Computer Programming I.....	3
CSCI1202	
Computer Programming II.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2232	
Data Structures.....	3
CSCI2247	
Assembly Language Programming.....	3
CSCI3240	
Computer Networks.....	3
CSCI3251	
Design of Software Systems.....	3
CSCI3255	
Mathematical Foundations of Computer Science.....	3
CSCI6603	
Computer Architecture*.....	3
CSCI6623	
Database Systems*.....	3
CSCI6638	
Operating Systems*.....	3
ENGR2286	
Digital System Design.....	3

### Science Requirements (16 credits)

	Credits
Science A I with Lab.....	4
Science A II with Lab.....	4
Science B I with Lab.....	4
Science B II with Lab.....	4

### Mathematics Requirements (17 credits)

MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH2255	
Discrete Structures.....	3
MATH3220	
Linear Algebra.....	3
MATH3237	
Probability and Statistics I.....	3

### Humanities Requirements (15 credits)

ENGR2210	
Technical Communications.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
ENWR1002	
Composition II: Research and Argument.....	3
Humanities Elective.....	3

### University Requirements (8 credits)

UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

Students must complete any two of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

\*These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.

# Combined Degree Programs

B.S. in Computer Science/M.S. in Management Information Systems

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

## Concentration Requirements (18 credits)

	Credits
Concentration A I.....	3
Concentration A II.....	3
Concentration A III.....	3
Concentration B I.....	3
Concentration B II.....	3
Concentration B III.....	3

## Free Electives (10 credits)

Total.... 120

## Computer Science Graduate Requirements (21 credits)

Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better.

In addition, students will take two more core courses:

CSCI6620	
Software Engineering.....	3
CSCI7645	
Systems Programming.....	3
and	
Computer Science Electives.....	15

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

## B.S. in Computer Science/ M.S. in Management Information Systems Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in management information systems (MIS) with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate MIS program.

## B.S. in Computer Science/M.S. in Management Information Systems 120+21=141 credits

### Computer Science Undergraduate Core Requirements (36 credits)

	Credits
CSCI1201	
Computer Programming I.....	3
CSCI1202	
Computer Programming II.....	3
CSCI2215	
Introduction to Computer Science.....	3
CSCI2232	
Data Structures.....	3
CSCI2247	
Assembly Language Programming.....	3
CSCI3240	
Computer Networks.....	3
CSCI3251	
Design of Software Systems.....	3
CSCI3255	
Mathematical Foundations of Computer Science.....	3
CSCI6603	
Computer Architecture*.....	3
CSCI6623	
Database Systems*.....	3
CSCI6638	
Operating Systems*.....	3
ENGR2286	
Digital System Design.....	3

\*These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.

## Science Requirements (16 credits)

	Credits
Science A I with Lab.....	4
Science A II with Lab.....	4
Science B I with Lab.....	4
Science B II with Lab.....	4

## Mathematics Requirements (17 credits)

MATH1201	
Calculus I.....	4
MATH2202	
Calculus II.....	4
MATH2255	
Discrete Structures.....	3
MATH3220	
Linear Algebra.....	3
MATH3237	
Probability and Statistics I.....	3

## Humanities Requirements (15 credits)

ENGR2210	
Technical Communications.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
ENWR1002	
Composition II: Research and Argument.....	3
Humanities Elective.....	3

## University Requirements (8 credits)

UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3

## Business Requirements (6 credits)

ACCT5012	
Financial Accounting: End-user Applications.....	2
ECON5012	
Economic Analysis.....	2
MKTG5012	
Marketing Principles.....	2

Students must complete any two of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

# Combined Degree Programs

B.S.E.E./M.S. in Computer Engineering

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

## Concentration Requirements (18 credits)

	Credits
Concentration A I.....	3
Concentration A II.....	3
Concentration A III.....	3
Concentration B I.....	3
Concentration B II.....	3
Concentration B III.....	3

## Free Electives (4 credits)

Total.... 120

## Management Information Systems Graduate Requirements (21 credits)

Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better. In addition, they will take five additional core courses:

CSCI6720	3
Management Information Systems.....	3
CSCI6758	3
Electronic Commerce.....	3
CSCI7727	3
Development of MIS I: Project Management and Systems Analysis.....	3
CSCI7791	3
Information Systems for Competitive Advantage.....	3
Graduate Electives.....	9

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

## B.S.E.E./M.S. in Computer Engineering Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science (M.S.) degree in computer engineering with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a 2.75 cumulative grade point ratio.

A minimum of 128 credits is required for the B.S.E.E. degree and a minimum of 149 credits is required for the combined B.S.E.E./M.S. in computer engineering degrees.

### Requirements

#### First Year

	Credits
<b>1st Semester</b>	
ENGR1301	3
Engineering Practices, Graphics and Design.....	3
ENWR1001	3
Composition I: Rhetoric and Inquiry....	3
MATH1201	4
Calculus I.....	4
PHYS2201	1
Physics Laboratory I.....	1
PHYS2203	3
University Physics I.....	3
UNIV1001	1
Transitioning to University Life.....	1
Total.....	15

#### 2nd Semester

ENGR1204	3
Programming Languages in Engineering.....	3
ENGR2286	3
Digital System Design.....	3
ENWR1002	3
Composition II: Research and Argument.....	3
MATH2202	4
Calculus II.....	4
PHYS2202	1
Physics Laboratory II.....	1
PHYS2204	3
University Physics II.....	3
UNIV1002	1
Preparing for Professional Life.....	1
Total.....	18

#### Second Year

##### 3rd Semester

	Credits
EENG2221	4
Signals and Systems I.....	4
EENG2287	3
Microprocessor System Design I.....	3
ENGR3200	3
Advanced Engineering Programming.....	3
MATH2210	3
Differential Equations.....	3
UNIV2001	3
Cross-cultural Perspectives.....	3
Total.....	16

##### 4th Semester

EENG2222	3
Signals and Systems II.....	3
EENG3288	3
Microprocessor System Design II.....	3
ENGR2210	3
Technical Communications.....	3
ENGR4221	3
Engineering Statistics and Reliability.....	3
UNIV2002	3
Global Issues.....	3
Total.....	15

#### Third Year

##### 5th Semester

EENG3223	3
Linear Systems.....	3
EENG3265	3
Electronics I.....	3
EENG4375	3
Electrical Energy Conversion.....	3
ENGR2221	3
Statics.....	3
MATH2203	3
Calculus III.....	3
Total.....	15

##### 6th Semester

CHEM1201	3
General Chemistry I.....	3
CHEM1203	1
General Chemistry Laboratory I.....	1
EENG3224	3
Digital Signal Processing.....	3
EENG3266	3
Electronics II.....	3
ENGR3000	3
Modern Technologies: Principles, Applications and Impacts.....	3
ENGR3341	3
Advanced Engineering Mathematics.....	3
Total.....	16



# Combined Degree Programs

B.S.E.E./M.S.E.E.

## Fourth Year

7th Semester	Credits
EENG3244	
Electromagnetic Fields and Waves.....	3
EENG3267	
Electronics III.....	3
EENG4260	
Preparation for Electrical Engineering Project.....	1
EENG4342	
Data Communications and Computer Networks.....	3
EENG7725	
Automatic Control Systems I.....	3
ENGR4210	
Managerial and Engineering Economic Analysis.....	3
	Total..... 16

## 8th Semester

CSCI2232	
Data Structures.....	3
CSCI6603	
Computer Architecture.....	3
EENG4268	
Electrical Engineering Project.....	2
EENG4341	
Communication Systems.....	3
EENG4347	
Wireless Communication.....	3
EENG7701	
Logic System Design.....	3
	Total..... 17

## Fifth Year

### 9th Semester

CSCI6620	
Software Engineering.....	3
EENG7709	
Embedded Systems.....	3
CSCI Graduate Elective.....	3
EENG Graduate Elective.....	3
	Total..... 12

### 10th Semester

CSCI Graduate Elective.....	3
EENG or CSCI Graduate Electives.....	6
	Total..... 9
Total Degree Requirements.....	149

For full details, consult an adviser and/or the *Graduate Studies Bulletin*.

## B.S.E.E./M.S.E.E.

### Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) degree and a Master of Science in Electrical Engineering (M.S.E.E.) degree with a combined degree load that is 9 credits less than that of the separate degrees.

Students must register for this program by their junior year and must have achieved at least a 2.75 cumulative grade point ratio.

A minimum of 128 credits is required for the B.S.E.E. degree and a minimum of 149 credits is required for the combined B.S.E.E./M.S.E.E. degrees.

### Requirements

#### First Year

1st Semester	Credits
ENGR1301	
Engineering Practices, Graphics and Design.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1201	
Calculus I.....	4
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV1001	
Transitioning to University Life.....	1
	Total..... 15

#### 2nd Semester

ENGR1204	
Programming Languages in Engineering.....	3
ENGR2286	
Digital System Design.....	3
ENWR1002	
Composition II: Research and Argument.....	3
MATH2202	
Calculus II.....	4
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
UNIV1002	
Preparing for Professional Life.....	1
	Total..... 18

## Second Year

### 3rd Semester

3rd Semester	Credits
EENG2221	
Signals and Systems I.....	4
EENG2287	
Microprocessor System Design I.....	3
ENGR3200	
Advanced Engineering Programming.....	3
MATH2210	
Differential Equations.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
	Total..... 16

### 4th Semester

EENG2222	
Signals and Systems II.....	3
EENG3288	
Microprocessor System Design II.....	3
ENGR2210	
Technical Communications.....	3
ENGR4221	
Engineering Statistics and Reliability.....	3
UNIV2002	
Global Issues.....	3
	Total..... 15

## Third Year

### 5th Semester

EENG3223	
Linear Systems.....	3
EENG3265	
Electronics I.....	3
EENG4375	
Electrical Energy Conversion.....	3
ENGR2221	
Statics.....	3
MATH2203	
Calculus III.....	3
	Total..... 15

### 6th Semester

CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
EENG3266	
Electronics II.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
ENGR3341	
Advanced Engineering Mathematics.....	3
Technical Elective*.....	3
	Total..... 16

\*Six credits must be selected from the technical electives list for the engineering curriculum, copies of which can be obtained through the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering. Choices must be approved by an academic adviser.

# Combined Degree Programs

B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

## Fourth Year

### 7th Semester

	Credits
EENG3244	
Electromagnetic Fields and Waves.....	3
EENG3267	
Electronics III.....	3
EENG4260	
Preparation for Electrical	
Engineering Project.....	1
EENG4342	
Data Communications and	
Computer Networks.....	3
EENG6633	
Digital Signal Processing.....	3
EENG7725	
Automatic Control Systems I.....	3
Total.....	16

### 8th Semester

EENG4268	
Electrical Engineering Project.....	2
EENG4341	
Communication Systems.....	3
EENG4347	
Wireless Communication.....	3
EENG7701	
Logic System Design.....	3
ENGR4210	
Managerial and Engineering	
Economic Analysis.....	3
Technical Elective*.....	3
Total.....	17

### 9th Semester

EENG6747	
Digital Communications.....	3
EENG7709	
Embedded Systems.....	3
EENG Graduate Electives.....	6
Total.....	12

### 10th Semester

EENG Graduate Elective.....	3
EENG or CSCI Graduate Electives.....	6
Total.....	9
Total Degree Requirements.....	149

For full details, consult an adviser and/or the *Graduate Studies Bulletin*.

\*Six credits must be selected from the technical electives list for the engineering curriculum, copies of which can be obtained through the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering. Choices must be approved by an academic adviser.

## B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

### Five-year Program

### Recommended Course Sequencing

#### 1st Semester

	Credits
ENGL1111	
Literature and Composition I	
or	
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
HRTM1101	
Career Orientation and Professional	
Development.....	1
HRTM2500	
Professional Development Sequence	
(PDS) Lab.....	0
DSCI1234	
Mathematics for Business Decisions	
or	
MATH1141	
Introduction to Mathematical	
Methods.....	3
MIS1045	
Information Technology for Business	
or	
MIS1135	
Introduction to Computers.....	3
PSYC1103	
General Psychology	
or	
PSYC1141	
Psychology I.....	3
UNIV1000	
Transitioning to University Life.....	1
Foreign Language Requirement*.....	3
Total.....	17

#### 2nd Semester

ACCT1131	
Accounting I	
or	
ACCT2021	
Introductory Financial Accounting.....	3

\*A student may satisfy this liberal arts requirement (foreign language) in one of four ways: 1) Recommend 6 credits of the same foreign language; 2) Language and culture courses: each course listed in the Undergraduate Studies Bulletin as "Language and Cultural Studies" will fulfill three credits toward this requirement; 3) English for Professional Success: International students can fulfill this requirement by the successful completion of the English for Professional Success (EPS) requirement; 4) Study abroad: Students can fulfill this requirement by taking six credits of an immersion course in any language followed by a University-approved intercultural travel experience.

	Credits
ENGL1112	
Literature and Composition II	
or	
ENWR1002	
Composition II: Research and	
Argument.....	3
HRTM1100	
Professional Development Sequence	
(PDS) Work Experience 1.....	1
HRTM1102	
Professional Skill Development.....	1
HRTM2500	
Professional Development	
Sequence (PDS) Lab.....	0
POLS1102	
Geography and World Issues.....	3
UNIV1002	
Preparing for Professional Life.....	1
Foreign Language Requirement*.....	3
Free Elective**.....	3
Total.....	18

#### 3rd Semester

COMM2101	
Professional Communication.....	3
ECON1121	
Macroeconomics.....	3
HRTM2103	
Management Values and Professional	
Standards.....	2
HRTM2211	
Accounting for Hospitality Managers.....	3
HRTM2500	
Professional Development Sequence	
(PDS) Lab.....	0
DSCI2029	
Introduction to Statistics	
or	
MATH1142	
Introduction to Statistics.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	17

\*A student may satisfy this liberal arts requirement (foreign language) in one of four ways: 1) Recommend 6 credits of the same foreign language; 2) Language and culture courses: each course listed in the Undergraduate Studies Bulletin as "Language and Cultural Studies" will fulfill three credits toward this requirement; 3) English for Professional Success: International students can fulfill this requirement by the successful completion of the English for Professional Success (EPS) requirement; 4) Study abroad: Students can fulfill this requirement by taking six credits of an immersion course in any language followed by a University-approved intercultural travel experience.

\*\*Adviser-approved courses offered by Anthony J. Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts • Sciences • Professional Studies.

# Combined Degree Programs

B.S. in Information Technology/M.S. in Computer Science

<b>4th Semester</b>	Credits
HRTM2100	
Professional Development Sequence (PDS) Work Experience 2.....	1
HRTM2104	
The Hospitality Manager and Law.....	2
HRTM2211	
Accounting for Hospitality Managers....	3
HRTM2235	
Sustainability and Ecotourism.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3208	
Financial Management in the Hospitality Industry.....	3
SPCH1155	
Public Speaking.....	3
UNIV2002	
Global Issues.....	3
<b>Total.....</b>	<b>18</b>

<b>5th Semester</b>	Credits
HRTM2210	
Sales and Marketing for Hospitality Managers.....	3
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3105	
Managerial Challenges in the Workplace.....	1
HRTM3108	
Nutrition, Sanitation and Food Safety....	3
HRTM3203	
Food and Beverage Management.....	3
HRTM3209	
Human Resource Management.....	3
Laboratory Science Elective.....	3
<b>Total.....</b>	<b>16</b>

<b>6th Semester</b>	Credits
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM3100	
Professional Development Sequence (PDS) Work Experience 3.....	1
HRTM3106	
The Manager and the Group: Work Experience.....	1
HRTM3207	
Lodging Operations and Revenue Management.....	3
HRTM4280	
Domestic and International Tourism.....	3
HRTM7710	
Current Concepts in Leadership.....	3
HRTM7751	
Research Methodology I.....	3

	Credits
MIS2001	
Management Information Systems.....	3
<b>Total.....</b>	<b>17</b>

<b>7th Semester</b>	Credits
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM4107	
Concepts in Transportation and Travel.....	2
HRTM4204	
Property Management.....	3
HRTM7734	
Global Marketing for Hospitality Executives.....	3
Graduate Elective.....	3
Free Elective*.....	1
<b>Total.....</b>	<b>12</b>

<b>8th Semester</b>	Credits
HRTM2500	
Professional Development Sequence (PDS) Lab.....	0
HRTM4108	
Global Issues in Hospitality Management (seminar abroad).....	2
HRTM4109	
Hospitality Operations Tactics and Strategy.....	3
HRTM7708	
Organizational Communication and Conflict Management.....	3
HRTM7714	
Advanced Human Resource Management.....	3
Free Elective.....	3
<b>Total.....</b>	<b>14</b>

<b>9th Semester</b>	Credits
HRTM7713	
Financial Management.....	3
HRTM7716	
Service Management.....	3
HRTM	
Graduate Elective.....	3
<b>Total.....</b>	<b>9</b>

<b>10th Semester</b>	Credits
HRTM7715	
Special Project.....	0
HRTM7738	
Advanced Graduate Practicum.....	3
HRTM7752	
Research Methodology II.....	3
<b>Total.....</b>	<b>6</b>

\*Adviser-approved courses offered by Anthony J. Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts • Sciences • Professional Studies.

## B.S. in Information Technology/M.S. in Computer Science Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science (B.S.) degree in information technology and a Master of Science (M.S.) degree in computer science with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 3.00.

A minimum of 123 credits is required for the B.S. in information technology degree, and a minimum of 144 credits is required for the combined B.S. in information technology/M.S. in computer science degrees.

### Requirements

#### First Year

<b>1st Semester</b>	Credits
CSCI1105	
Survey of Computers and Computer Software.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
INFO1101	
Computer Concepts and Technology....	3
MATH1105	
College Algebra.....	4
UNIV1001	
Transitioning to University Life.....	1
<b>Total.....</b>	<b>14</b>

#### 2nd Semester

ART1177	
Introduction to Digital Media.....	3
ENWR1002	
Composition II: Research and Argument.....	3
INFO1201	
Information Technology.....	3
MATH1107	
Precalculus.....	4
UNIV1002	
Preparing for Professional Life.....	1
<b>Total.....</b>	<b>14</b>

# Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

## Second Year

<b>3rd Semester</b>	Credits
EGTG2210	
Technical Communications.....	3
INFO2101	
Computer Programming for Information Technologists I.....	3
INFO2105	
Internet and Web Applications.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Laboratory Science Elective.....	4
Total.....	16

## 4th Semester

ENGR2286	
Digital System Design.....	3
INFO2102	
Computer Programming for Information Technologists II.....	3
INFO2106	
Website Design and Management.....	3
UNIV2002	
Global Issues.....	3
Laboratory Science Elective.....	4
Total.....	16

## Third Year

### 5th Semester

CSCI2252	
Data Structures.....	3
CSCI2247	
Assembly Language Programming or	
EENG2287	
Microprocessor System Design I.....	3
ENGR3000	
Modern Technologies: Principles, Applications and Impacts.....	3
MATH2337	
Applied Statistics I.....	3
Information Technology Elective.....	3
Total.....	15

### 6th Semester

CSCI6623	
Database Systems.....	3
CSCI6638	
Operating Systems.....	3
INFO3201	
Human Computer Interface.....	3
INFO3205	
Digital Media Publishing.....	3
Information Technology Elective.....	3
Total.....	15

## Fourth Year

<b>7th Semester</b>	Credits
CSCI6603	
Computer Architecture.....	3
ENGR4210	
Managerial and Engineering Economic Analysis.....	3
INFO4101	
Data Communications and Computer Networks I.....	3
INFO4201	
Information Technology Needs Assessment and Management.....	3
MATH2255	
Discrete Structures.....	3
Information Technology Elective.....	3
Total.....	18

### 8th Semester

CSCI3274	
Linux System Administration.....	3
INFO4205	
Information Technology Capstone Project.....	3
INFO4410	
Foundations of Cybersecurity.....	3
INFO4844	
Programming for the Internet.....	3
Information Technology Elective.....	3
Total.....	15

## Fifth Year

### 9th Semester

CSCI6620	
Software Engineering.....	3
Graduate Computer Science Electives.....	9
Total.....	12

### 10th Semester

CSCI7645	
Systems Programming.....	3
Graduate Computer Science Electives.....	6
Total.....	9
Total Degree Requirements.....	144

For full details consult an adviser and/or the *Graduate Studies Bulletin*.

## B.S. in Biochemistry/Doctor of Pharmacy Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in biochemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying biochemistry (minimum of 30 credits, maximum of 60 credits) and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a "feeder" science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

## Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU's School of Pharmacy and Health Sciences. Students not accepted into FDU's School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biochemistry/Pharm.D. combined degree and into another concentration.

## B.S. in Biochemistry and Doctor of Pharmacy Combined Degree

<b>1st Semester</b>	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1

# Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

	Credits	<b>4th Semester</b>	Credits	<b>7th Semester</b>	Credits
ENWR1001		CHEM2262		PHRM6100	
Composition I: Rhetoric and Inquiry.....	3	Organic Chemistry II.....	3	Foundations in Pharmaceutical	
MATH1201		CHEM2264		Science: Pharmacology,	
Calculus I.....	4	Organic Chemistry Laboratory II.....	2	Medicinal Chemistry,	
UNIV1001		PHYS2202		Pharmacokinetics.....	4
Transitioning to University Life.....	1	Physics Laboratory II.....	1	PHRM6101	
Total.....	16	PHYS2204		Foundations in Integrated	
<b>2nd Semester</b>		University Physics II.....	3	Pharmacotherapy I: An	
BIOL1252		SPCH		Introduction to Pathophysiology,	
General Biology II.....	3	Oral Communication Elective*.....	3	Genetics, Microbiology and	
BIOL1254		UNIV2002		Delivery of Care.....	3
Laboratory: General Biology II.....	1	Global Issues.....	3	PHRM6201	
CHEM1202		Humanities Course**.....	3	Pharmaceutics I: Physical Pharmacy.....	3
General Chemistry II.....	3	Total.....	18	PHRM6211	
CHEM1204		<b>5th Semester</b>		Pharmaceutical Calculations I.....	1
General Chemistry Laboratory II.....	1	BIOL2203, BIOL2223		PHRM6301	
ENWR1002		Human Anatomy and Physiology I		Medical Communication and	
Composition II: Research and		(Lecture and Laboratory).....	4	Technical Writing.....	2
Argument.....	3	BIOL2210, BIOL2211		PHRM6321	
MATH2202		Genetics (Lecture and Laboratory).....	4	Pharmacy Practice Law.....	2
Calculus II.....	4	CHEM3241, CHEM3243		PHRM6401	
UNIV1002		Physical Chemistry I		Professional Pharmacy Practice I:	
Preparing for Professional Life.....	1	(Lecture and Laboratory)		Health Care Delivery.....	3
Total.....	16	or		PHRM6700	
<b>3rd Semester</b>		CHEM4233, CHEM4234		Beyond the Curriculum:	
BIOL4405		Instrumental Analysis		Foundations in Pharmacy	
Ethics in Science.....	3	(Lecture and Laboratory).....	5	Education (1).....	0
CHEM2261		CHEM3281		Total.....	18
Organic Chemistry I.....	3	Biochemistry I.....	3	<b>8th Semester</b>	
CHEM2263		Total.....	16	PHRM6102	
Organic Chemistry Laboratory I.....	2	<b>6th Semester</b>		Integrated Pharmacotherapy II:	
PHYS2201		BIOL2204, BIOL2224		Gastrointestinal.....	3
Physics Laboratory I.....	1	Human Anatomy and Physiology II		PHRM6103	
PHYS2203		(Lecture and Laboratory).....	4	Integrated Pharmacotherapy III:	
University Physics I.....	3	BIOL6733		Dermatology, Over-the-Counter	
UNIV2001		Enzymology.....	3	Remedies and Self Care.....	3
Cross-cultural Perspectives.....	3	CHEM3231, CHEM3232		PHRM6104	
Humanities Course*.....	3	Analytical Chemistry		Integrated Pharmacotherapy IV:	
Total.....	18	(Lecture and Laboratory).....	4	Cardiology/Pulmonary I.....	3
		BIOL4901		PHRM6111	
		Biology Seminar II.....	1	Integrated Pharmacotherapy II–IV:	
		or		Conceptual Connections and	
		CHEM3242, CHEM3244		Patient Care.....	2
		Physical Chemistry II		PHRM6202	
		(Lecture and Laboratory).....	5	Pharmaceutics II – Oral Dosage	
		MATH2337		Forms and Biopharmaceutics/ Pharmacokinetics.....	2
		Applied Statistics I.....	3	PHRM6402	
		Total.....	15	Professional Pharmacy Practice II:	
				Communication in Health Care.....	2
				PHRM6701	
				Beyond the Curriculum:	
				Foundations in Pharmacy	
				Education (2).....	1
				Total.....	17

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2238 The Global Art World.

\*Requirements consist of a three-credit Speech course.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

## **School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7**

	Credits		Credits
PHRM6501		PHRM8110	
Introductory Pharmacy Practice Experience (IPPE) I: Community.....	4	Integrated Pharmacotherapy X: Hematology and Oncology.....	3
PHRM7105		PHRM8111	
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....	4	Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care.....	2
PHRM7106		PHRM8112	
Integrated Pharmacotherapy VI: Infectious Disease.....	4	Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care.....	2
PHRM7107		PHRM8201	
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II.....	4	Pharmacogenomics and Personalized Medicine.....	2
PHRM7108		PHRM8301	
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.....	4	Pharmacoepidemiology, Pharmacoconomics and Health Outcomes.....	3
PHRM7111		PHRM8302	
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.....	2	Public Health and the Global Mission of Pharmacy.....	2
PHRM7112		PHRM8321	
Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.....	2	Health Care Ethics and Team Decision Making.....	1
PHRM7201		PHRM8402	
Pharmaceutics III: Dosage Forms and Drug Delivery Systems.....	2	Professional Pharmacy Practice IV: Pharmacy Leadership and Management.....	2
PHRM7202		PHRM8700	
Pharmaceutics IV: Sterile Products and Biopharmaceuticals.....	2	Beyond the Curriculum/Preparing Practitioners (1).....	0
PHRM7301		PHRM8701	
Biostatistics.....	2	Beyond the Curriculum/Preparing Practitioners (2).....	1
PHRM7302		PHRM9101	
Epidemiology and Study Design Evaluation.....	3	Advanced Pharmacy Practice Experience (APPE) I: Community.....	5
PHRM7401		PHRM9102	
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....	2	Advanced Pharmacy Practice Experience (APPE) II: Institutional...5	
PHRM7501		PHRM9103	
Introductory Pharmacy Practice Experience (IPPE) II: Institutional....4		Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care.....	5
PHRM7700		PHRM9104	
Beyond the Curriculum: Expanding Horizons (1).....	0	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care...5	
PHRM7701		PHRM9201	
Beyond the Curriculum: Expanding Horizons (2).....	1	Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I.....	5
PHRM8109		PHRM9203	
Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations.....	3	Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I.....	5
		PHRM9205	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I.....	5
		PHRM9207	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I.....	5
		PHRM9209	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS I.....	5
		PHRM9211	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I.....	5
		PHRM9301	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I.....	5
		PHRM9303	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I.....	5
		PHRM9305	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I.....	5
		PHRM9307	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I.....	5
		PHRM9309	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I.....	5
		PHRM9311	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care I.....	5
		PHRM9313	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I.....	5
		PHRM9315	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health I.....	5
		PHRM9401	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information I.....	5
		PHRM9403	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety I.....	5
		PHRM9405	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I.....	5

# Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

	Credits
PHRM9407	
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Specialty Pharmacy I.....	5
PHRM9409	
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I.....	5
PHRM9501	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Public Health I.....	5
PHRM9503	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Industry I.....	5
PHRM9505	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Research I.....	5
PHRM9507	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Marketing I.....	5
PHRM9509	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Patient Advocacy I.....	5
PHRM9511	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Health Care Organization Management I.....	5
PHRM9513	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics I.....	5
PHRM9515	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Management I.....	5
PHRM9517	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Regulatory I.....	5
PHRM9900	
Pharmacy Capstone I.....	1
PHRM9901	
Pharmacy Capstone II.....	2

## Florham Campus

### ***B.S. in Biochemistry and Doctor of Pharmacy Combined Degree\****

<b>1st Semester</b>	Credits
BIOL1201, BIOL1211	
Biological Diversity.....	4
BIOL1203	
Lab: Biological Diversity.....	0
CHEM1201, CHEM1211	
General Chemistry I.....	3
CHEM1205	
General Chemistry Laboratory I.....	1
ENGW1101	
College Writing Workshop.....	3
MATH1203	
Calculus I.....	4
UNIV1001	
Transitioning to College Life.....	1
<b>Total.....</b>	<b>16</b>

### ***2nd Semester***

BIOL1202, BIOL1212	
Introduction to Molecules, Cells and Genes.....	4
BIOL1204	
Introduction to Molecules, Cells and Genes Lab.....	0
CHEM1202, CHEM1212	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENGW1102	
Research Writing Workshop.....	3
MATH2202	
Calculus II.....	4
<b>Total.....</b>	<b>15</b>

### ***3rd Semester***

BIOL1205	
Anatomy and Physiology I.....	4
BIOL1207	
Lab: Anatomy and Physiology I.....	0
CHEM2261, CHEM2265	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	1
PHYS2003, PHYS2023	
General Physics with Calculus I.....	4
PHYS2013	
Lab: General Physics with Calculus I.....	0
SPCH1107	
Fundamentals of Speech.....	3
<b>Total.....</b>	<b>15</b>

### ***4th Semester***

	Credits
BIOL1206	
Anatomy and Physiology II.....	4
BIOL1208	
Lab: Anatomy and Physiology II.....	0
CHEM2262, CHEM2266	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	1
MATH1133	
Applied Statistics.....	3
PHYS2004, PHYS2024	
General Physics with Calculus II.....	4
PHYS2014	
Lab: General Physics with Calculus II.....	0
<b>Total.....</b>	<b>15</b>

### ***5th Semester***

CHEM3241, CHEM3245	
Physical Chemistry I.....	3
CHEM3243	
Physical Chemistry Laboratory I.....	2
CHEM3281	
Biochemistry I.....	3
CHEM3389	
Biochemistry Laboratory.....	1
UNIV1002	
Preparing for Professional Life.....	1
Language Course.....	4
<b>Total.....</b>	<b>14</b>

### ***6th Semester***

CHEM2221	
Analytical Chemistry.....	4
CHEM2223	
Lab: Analytical Chemistry.....	0
CHEM3242, CHEM3246	
Physical Chemistry II.....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
CHEM3282	
Biochemistry II.....	3
ECON2001	
Introduction to Microeconomics.....	3
Textual and Aesthetic Analysis.....	3
<b>Total.....</b>	<b>18</b>

### ***7th Semester***

PHRM6100	
Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics.....	4
PHRM6101	
Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care.....	3

\*This is not American Chemical Society (ACS) certified.

# Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

Credits	Credits	Credits
PHRM6201 Pharmaceutics I: Physical Pharmacy..... 3	PHRM7105 Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....4	PHRM8112 Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care.....2
PHRM6211 Pharmaceutical Calculations I..... 1	PHRM7106 Integrated Pharmacotherapy VI: Infectious Disease.....4	PHRM8201 Pharmacogenomics and Personalized Medicine..... 2
PHRM6301 Medical Communication and Technical Writing.....2	PHRM7107 Integrated Pharmacotherapy VII: Cardiology/Pulmonary II..... 4	PHRM8301 Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes.....3
PHRM6321 Pharmacy Practice Law..... 2	PHRM7108 Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health..... 4	PHRM8302 Public Health and the Global Mission of Pharmacy.....2
PHRM6401 Professional Pharmacy Practice I: Health Care Delivery.....3	PHRM7111 Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.....2	PHRM8321 Health Care Ethics and Team Decision Making..... 1
PHRM6700 Beyond the Curriculum: Foundations in Pharmacy Education (1).....0	PHRM7112 Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.....2	PHRM8402 Professional Pharmacy Practice IV: Pharmacy Leadership and Management.....2
Total..... 18	PHRM7201 Pharmaceutics III: Dosage Forms and Drug Delivery Systems.....2	PHRM8700 Beyond the Curriculum/ Preparing Practitioners (1).....0
<b>8th Semester</b>	PHRM7202 Pharmaceutics IV: Sterile Products and Biopharmaceuticals.....2	PHRM8701 Beyond the Curriculum/ Preparing Practitioners (2)..... 1
PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal.....3	PHRM7301 Biostatistics.....2	PHRM9101 Advanced Pharmacy Practice Experience (APPE) I: Community....5
PHRM6103 Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care..... 3	PHRM7302 Epidemiology and Study Design Evaluation.....3	PHRM9102 Advanced Pharmacy Practice Experience (APPE) II: Institutional...5
PHRM6104 Integrated Pharmacotherapy IV: Cardiology/Pulmonary I..... 3	PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....2	PHRM9103 Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care.....5
PHRM6111 Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care..... 2	PHRM7501 Introductory Pharmacy Practice Experience (IPPE) II: Institutional...4	PHRM9104 Advanced Pharmacy Practice Experience (APPE) IV: Acute Care...5
PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/ Pharmacokinetics..... 2	PHRM7700 Beyond the Curriculum: Expanding Horizons (1).....0	PHRM9201 Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I..... 5
PHRM6212 Pharmaceutical Calculations II.....1	PHRM7701 Beyond the Curriculum: Expanding Horizons (2)..... 1	PHRM9202 Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I..... 5
PHRM6402 Professional Pharmacy Practice II: Communication in Health Care.....2	PHRM8109 Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations.....3	PHRM9203 Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I.....5
PHRM6701 Beyond the Curriculum: Foundations in Pharmacy Education (2).....1	PHRM8110 Integrated Pharmacotherapy X: Hematology and Oncology..... 3	PHRM9207 Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I..... 5
Total..... 17	PHRM8111 Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care..... 2	
<b>School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7</b>		
PHRM6501 Introductory Pharmacy Practice Experience (IPPE) I: Community.....4		



# Combined Degree Programs

B.S. in Biology/Doctor of Chiropractic

	Credits		Credits
PHRM9209		PHRM9409	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) V: Elective –		Experience (APPE) VII: Elective –	
HIV/AIDS I.....	5	Medical Device/Patient Safety I.....	5
PHRM9211		PHRM9501	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) V: Elective –		Experience (APPE) VIII:	
Home Infusion I.....	5	Elective – Public Health I.....	5
PHRM9301		PHRM9503	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Hospital Practice I.....	5	Elective – Industry I.....	5
PHRM9305		PHRM9505	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Acute Care I.....	5	Elective – Research I.....	5
PHRM9305		PHRM9507	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Long Term Care I.....	5	Elective – Marketing I.....	5
PHRM9307		PHRM9509	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Infectious Disease I.....	5	Elective – Patient Advocacy I.....	5
PHRM9309		PHRM9511	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Oncology I.....	5	Elective – Health Care	
PHRM9311		Organization Management I.....	5
Advanced Pharmacy Practice		PHRM9513	
Experience (APPE) VI: Elective –		Advanced Pharmacy Practice	
Critical Care I.....	5	Experience (APPE) VIII:	
PHRM9313		Elective – Informatics I.....	5
Advanced Pharmacy Practice		PHRM9515	
Experience (APPE) VI: Elective –		Advanced Pharmacy Practice	
Cardiology I.....	5	Experience (APPE) VIII:	
PHRM9315		Elective – Management I.....	5
Advanced Pharmacy Practice		PHRM9517	
Experience (APPE) VI: Elective –		Advanced Pharmacy Practice	
Behavioral Health I.....	5	Experience (APPE) VIII:	
PHRM9401		Elective – Regulatory I.....	5
Advanced Pharmacy Practice		PHRM9900	
Experience (APPE) VII: Elective –		Pharmacy Capstone I.....	1
Drug Information I.....	5	PHRM9901	
PHRM9403		Pharmacy Capstone II.....	2
Advanced Pharmacy Practice			
Experience (APPE) VII: Elective –			
Medication Safety I.....	5		
PHRM9405			
Advanced Pharmacy Practice			
Experience (APPE) VII: Elective –			
Managed Care I.....	5		
PHRM9407			
Advanced Pharmacy Practice			
Experience (APPE) VII: Elective –			
Specialty Pharmacy I.....	5		

## B.S. in Biology/Doctor of Chiropractic Six-year, Four-month Program

This accelerated, combined degree program enables students to earn both baccalaureate and Doctor of Chiropractic degrees in just six years and four months — a full year less than the normal study time of seven years and four months. Students can choose to attend undergraduate classes on either of Fairleigh Dickinson University's New Jersey campuses.

The bachelor's degree is awarded by the University and the Doctor of Chiropractic degree is awarded by a participating Council on Chiropractic Education (CCE)-accredited Colleges of Chiropractic. To date, the University has affiliations with New York Chiropractic College, Seneca Falls, N.Y.; Life Chiropractic College West, Hayward, Calif.; Logan University, Chesterfield, Mo.; Palmer College of Chiropractic, Davenport, Iowa; and University of Western States, Portland, Ore.

Students are admitted into FDU's combined degree program as incoming freshmen or qualified transfer students. The B.S. degree is awarded after the students completes six semesters (three years) at FDU (including the courses listed on the next pages or their approved equivalent), completes the first two trimesters of study at a participating chiropractic college with grades of C or better and is accepted into the third trimester. Up to 32 credits accepted in transfer toward completion of B.S. degree requirements will be selected from appropriate graduate-level courses offered by a participating chiropractic college.

### Specific Course Requirements

#### Metropolitan Campus

Under the provisions of the prechiropractic program on the Metropolitan Campus, Teaneck, New Jersey, students matriculate in the School of Natural Sciences, University College: Arts • Sciences • Professional Studies for a minimum of 99 credits of course work leading to the B.S. in biology (preprofessional degree option), including the following courses:

#### Liberal Arts and Humanities Requirements

	Credits
CSCI1105	
Survey of Computers and	
Computer Software.....	3
ENGL2201	
Masterpieces of World Literature I.....	3

# Combined Degree Programs

B.S. in Biology/Doctor of Chiropractic

	Credits
ENGL2202	
Masterpieces of World Literature II.....	3
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
ENWR1002	
Composition II: Research and	
Argument.....	3
UNIV1001	
Transitioning to University Life.....	1
UNIV1002	
Preparing for Professional Life.....	1
UNIV2001	
Cross-cultural Perspectives.....	3
UNIV2002	
Global Issues.....	3
Fine Arts Elective.....	2
Humanities Electives.....	6
Total.....	36

## Recommended Course Sequence

### 1st Semester

BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

### 2nd Semester

BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and	
Argument.....	3
UNIV1002	
Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

### 3rd Semester

BIOL2150, BIOL2250	
Ecology and Field Biology	
(Lecture and Laboratory)	
or	
MBIO1209, MBIO1219	
Introduction to Marine Biology	
(Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3

	Credits
CHEM2263	
Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

### 4th Semester

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	18

### 5th Semester

BIOL2237, BIOL2239	
Human Structure and Function	
(Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology	
(Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

### 6th Semester

BIOL4240, BIOL4241	
Molecular Cell Biology	
(Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

## Florham Campus

Under the provisions of the prechiropractic program at the Florham Campus, Madison, New Jersey, students matriculate in the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, for a minimum of 97 credits of course work leading to the B.S. in biology (preprofessional degree option), including the following courses:

### Biology Requirements

	Credits
BIOL1201, BIOL1203	
Biological Diversity	
(Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells	
and Genes (Lecture and	
Laboratory).....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory)...	4
BIOL3253, BIOL3254	
Comparative Anatomy	
(Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327	
General Physiology	
(Lecture and Laboratory).....	4

### Cognate Requirements

#### (Chemistry, Mathematics, Physics)

CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2
MATH1107	
Precalculus.....	4
MATH1203	
Calculus I.....	4

**Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:**

PHIL1440	
Biomedical Ethics.....	3
SPCH1107	
Fundamentals of Speech	
or	
COMM2099	
Professional Communications.....	3

# Combined Degree Programs

B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine

## **B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine**

### **Eight-year Program**

*(with Lake Erie College of Osteopathic Medicine, School of Dental Medicine)*

Lake Erie College of Osteopathic Medicine, School of Dental Medicine offers the D.M.D. degree through a full-time, four-year pathway at its campus in Bradenton, Fla. The curriculum consists of two years of basic science and preclinical instruction delivered through case-based, small-group problem-based learning sessions, as well as lectures, laboratories and introductory clinical experiences. Years three and four offer primarily hands-on, clinical experiences (<http://lecom.edu/school-dental-medicine>).

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Dental Medicine (D.M.D.) degree in eight years. The bachelor's degree (B.S. in biology/biochemistry/chemistry) is awarded by Fairleigh Dickinson University and the doctoral degree (D.M.D.) by Lake Erie College of Osteopathic Medicine (LECOM) – School of Dental Medicine. Through these Early Acceptance Programs, FDU undergraduate students are enrolled jointly by Fairleigh Dickinson University and by LECOM. Once recommended by Fairleigh Dickinson University, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM's Doctor of Dental Medicine program.

The "4+4" track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry, biology or chemistry degree. Phase II consists of four years of dental school education at LECOM and its associated clinical training sites. Upon meeting the criteria for final acceptance, students will matriculate at the LECOM Bradenton, Fla., campus.

Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each campus of Fairleigh Dickinson University. Provisionally accepted students may not apply

to any other medical school. Application to another medical school will result in the loss of the student's provisional acceptance.

### **Admission to the Combined Degree Programs**

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree programs. All applicants for admission to the combined degree programs must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating the applicant's credentials. Applicants are required to submit scores in the verbal and the mathematical components of SAT.

### **Combined Degree Program Requirements**

While enrolled at FDU, students are required to follow the preprofessional curriculum in one of the sciences (biology, biochemistry or chemistry). They are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and in science courses.

### **Qualifying for Enrollment at LECOM School of Dental Medicine**

Qualified students enrolled in the combined degree programs will be accepted into Phase II if they meet the following criteria:

- Completion of all FDU curriculum requirements, including including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to LECOM School of Dental Medicine. Students need to maintain a cumulative grade point ratio (CGPR) of 3.40 or higher in prerequisite courses with no grade lower than C in any of them and a cumulative overall science GPR of 3.20;

- A GPR of 3.40 or higher;
- An academic index score may be factored into admission decision.
- No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts;

- Submission of a satisfactory Dental Admission Test (DAT) score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion; and

- Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Florham Campus, Madison, N.J., prior to February 1 of their sophomore year.

### **Predental Curricula**

Students enrolled in the 4+4 years Early Acceptance Program will follow FDU's curricula for B.S. in sciences (for biochemistry, see pages 66 and 141; for biology, see pages 68 and 142; or for chemistry, see pages 69 and 146).

Under the provisions of the predental combined program, students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 96 credits of course work leading to the B.S. in one of the sciences (biochemistry, biology, chemistry).

# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

## B.S. in Biology/Doctor of Dental Medicine Seven-year Program

(with Rutgers School of Dental Medicine)

Students accepted into this program will spend their first three years at FDU. The following four years will be spent at the Rutgers School of Dental Medicine (RSDM). Following successful completion of the first year of study at RSDM the student will be awarded a B.S. degree by FDU.

### Admission to the Program

Qualified students who have completed their first three semesters of study achieving a 3.50 cumulative grade point ratio at FDU may apply. Applicants must have had secondary school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

Following evaluation of applications by the admissions office, the Joint Admissions Committee will decide which applicants to interview at FDU and RSDM. The interview at RSDM will be conducted by a member of the RSDM Admissions Committee. The final decision will be made by the Joint Admissions Committee following a review of the interviewers' comments.

### Final Admission to RSDM

Final admission into the Rutgers School of Dental Medicine is dependent on satisfactory completion of the following:

1. 98 credits as listed on this page and page 253 at University College: Arts • Sciences • Professional Studies or 98 credits as listed on this page at the Maxwell Becton College of Arts and Sciences.

2. A minimum grade point ratio of 3.50 and a minimum grade of B in each of the science courses required for admission to RSDM. There shall be no final grade of "D", "F" or "I" in any course required for admission to RSDM, appearing on the student's transcript.

3. A satisfactory score on the Dental Aptitude Test must be submitted prior to admission to RSDM.

4. A recommendation by four faculty members, including the chair of the department of biological and allied health sciences at the Florham Campus, Madison, New Jersey, or the director of the School of Natural Sciences at the Metropolitan

Campus, Teaneck, New Jersey, and the pre-professional adviser is required. FDU students wishing to participate in the program must apply in writing to the preprofessional adviser no later than completion of 60 credits at FDU.

5. Participation in any orientation programs required by RSDM.

6. Final entrance into the D.M.D. program is contingent on satisfactory performance in all six semesters at FDU, not withstanding any prior offer of admission.

7. Further information can be obtained from the Advisement Office for Graduate and Professional Studies at the Florham Campus, Madison, New Jersey, or the Graduate School and Professional Studies Advisement Center at the Metropolitan Campus, Teaneck, New Jersey.

### Specific Course Requirements

The course requirements to be followed at Maxwell Becton College of Arts and Sciences at the Florham Campus, Madison, New Jersey, or University College: Arts • Sciences • Professional Studies at the Metropolitan Campus, Teaneck, New Jersey, are found on this and the following page.

### Florham Campus

#### Biology Requirements

	Credits
BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...	4
BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory).....	4
BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory).....	4

### Cognate Requirements

#### (Chemistry, Mathematics, Physics)

CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2

	Credits
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
CHEM3281, CHEM3389 Biochemistry I (Lecture and Laboratory).....	4
MATH1107 Precalculus.....	4
MATH1133 Applied Statistics.....	3
MATH1203 Calculus I.....	4
<b>Students must complete the general education course plan (see pages 54-55) as well, including these specific classes:</b>	
PHIL1440 Biomedical Ethics.....	3
SPCH1107 Fundamentals of Speech or COMM2099 Professional Communications.....	3

### Metropolitan Campus

#### 1st Semester

BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory).....	4
CHEM1201 General Chemistry I.....	3
CHEM1203 General Chemistry Laboratory I.....	1
ENWR1001 Composition I: Rhetoric and Inquiry.....	3
UNIV1001 Transitioning to University Life.....	1
Total.....	12

#### 2nd Semester

BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....	4
CHEM1202 General Chemistry II.....	3
CHEM1204 General Chemistry Laboratory II.....	1
ENWR1002 Composition II: Research and Argument.....	3
UNIV1002 Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

# Combined Degree Programs

B.S. in Biology/Medical Doctor

<b>3rd Semester</b>	Credits
BIOL2250, BIOL2150 Ecology and Field Biology (Lecture and Laboratory).....	4
CHEM2261 Organic Chemistry I.....	3
CHEM2263 Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

<b>4th Semester</b>	Credits
BIOL2210, BIOL2211 Genetics (Lecture and Laboratory).....	4
BIOL2300 Experimental Design.....	3
CHEM2262 Organic Chemistry II.....	3
CHEM2264 Organic Chemistry Laboratory II.....	2
UNIV2002 Global Issues.....	3
Humanities Course**.....	3
Total.....	18

<b>5th Semester</b>	Credits
BIOL2237, BIOL2239 Human Structure and Function (Lecture and Laboratory).....	4
BIOL3225, BIOL3226 General Microbiology (Lecture and Laboratory).....	4
BIOL4900 Biology Seminar I.....	1
PHYS2201 Physics Laboratory I.....	1
PHYS2203 University Physics I.....	3
UNIV2001 Cross-cultural Perspectives.....	3
Total.....	16

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.  
\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

<b>6th Semester</b>	Credits
BIOL4240, BIOL4241 Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4405 Ethics in Science.....	3
CHEM3281 Biochemistry I.....	3
PHYS2202 Physics Laboratory II.....	1
PHYS2204 University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

Consult pages 143–144 for additional details about the requirements for the B.S. in biology at the Metropolitan Campus, Teaneck, New Jersey.

## **B.S. in Biology/Medical Doctor Eight-year Program**

(with Ross University School of Medicine, Portsmouth, Dominica, West Indies)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree (B.S. in biology) and a Medical Doctor (M.D.) degree in eight years. The bachelor's degree is awarded by Fairleigh Dickinson University and the doctoral degree (M.D.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the Bachelor of Science degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

## **Admission to the Combined Degree Program**

High school seniors with a combined SAT score of 1150 or higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a 3.40 cumulative grade point ratio or higher may apply for admission to the combined degree program. Applicants must have had secondary-school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

## **Combined Degree Program Requirements**

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are

# Combined Degree Programs

B.S. in Biology/Medical Doctor

expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

## Qualifying for Enrollment at Ross University

To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at Ross University. Students need to maintain a grade point ratio (GPR) of 3.00 or higher in prerequisite courses with no D or F in any of the courses;

- A GPR of 3.25 or higher;
- Submission of a satisfactory MCAT score (24 or higher) in a timely fashion;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and

- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

## Premedical Curricula

Under the provisions of the premedical program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits (University College) 97 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

### Metropolitan Campus

1st Semester	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

### 2nd Semester

BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
UNIV1002	
Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

### 3rd Semester

BIOL2150, BIOL2250	
Ecology and Field Biology (Lecture and Laboratory)	
or	
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

4th Semester	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course*.....	3
Total.....	18

### 5th Semester

BIOL2237, BIOL2239	
Human Structure and Function (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

### 6th Semester

BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Combined Degree Programs

B.S. in Biology/Medical Doctor

B.S. in Biology/Doctor of Osteopathic Medicine

B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine

## Florham Campus

### **Biology Requirements** Credits

BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...	4
BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory).....	4
BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory).....	4

### **Cognate Requirements (Chemistry, Mathematics, Physics)**

CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
CHEM3281 Biochemistry I.....	3
MATH1107 Precalculus.....	4
MATH1133 Applied Statistics.....	3
MATH1203 Calculus I.....	4

### **Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:**

PHIL1440 Biomedical Ethics.....	3
SPCH1107 Fundamentals of Speech or	
COMM2009 Professional Communications.....	3

### **B.S. in Biology/Medical Doctor Seven-year Program**

*(with Universidad Autónoma de  
Guadalajara School of Medicine, Mexico)*

The program is based on the U.S. model. Students who complete the program are eligible to practice medicine in all 50 states. Universidad Autónoma de Guadalajara School of Medicine is approved by the U.S. Department of Education as an eligible institution to participate in the Stafford Plus and Supplemental Student Loan Programs. While Spanish is not required for applicants, one-year, college-level Spanish is recommended. There is a rolling admissions policy and two entering classes per year (August and January). Residencies in all 50 states. (<http://www.uag.edu/medicine> or <http://www.uag.mx>).

### **B.S. in Biology/Doctor of Osteopathic Medicine Seven-year Program**

### **B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine Eight-year Program**

*(with Lake Erie College of Osteopathic  
Medicine)*

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Osteopathic Medicine (D.O.) degree in seven (accelerated) or eight years. The bachelor's degrees are awarded by Fairleigh Dickinson University and the doctoral degree (D.O.) by Lake Erie College of Osteopathic Medicine (LECOM). Through these Early Acceptance Programs, Fairleigh Dickinson University undergraduate students are enrolled jointly by FDU and by LECOM. Once recommended by FDU, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM's Doctor of Osteopathic Medicine program.

The "4+4" track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry or biology or chemistry degree. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites.

The "3+4" track is comprised of two phases. Phase I consists of three years of undergraduate education at FDU. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites. Students enrolled in this track will receive a B.S. in biology from FDU upon completion of at least 32 credit hours at LECOM. Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each New Jersey campus of FDU. Provisionally accepted students may not apply to any other medical school. Application to

# Combined Degree Programs

B.S. in Biochemistry or Biology or Chemistry/Doctor of Osteopathic Medicine

another medical school will result in the loss of the student's provisional acceptance.

## Admission to Phase I of the Combined Degree Programs

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree program. All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicant's credentials. Applicants are required to submit scores in the verbal and the mathematical components of the SAT.

### Medical 3+4 Phase I Admissions

#### Criteria:

SAT (mathematics and verbal) or ACT score: 1280 (SAT) or 29 (ACT)

High school unweighted GPA: 3.80

### Medical 4+4 Phase I Admissions

#### Criteria:

SAT (mathematics and verbal) or ACT score: 1170 (SAT) or 26 (ACT)

High school unweighted GPA: 3.50

## Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology (for the 3+4 track) and a curriculum in biology, biochemistry or chemistry for the 4+4 track. They are expected to maintain a minimum cumulative grade point ratio (GPR) of 3.40 or higher in all course work and a minimum GPR of 3.20 in science courses.

## Qualifying for Enrollment of Phase II at Lake Erie College of Osteopathic Medicine

Qualified students enrolled in the combined degree programs will be accepted into Phase II of the program if they meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at LECOM. Students need to maintain a

GPR of 3.20 or higher in prerequisite courses with no grade lower than C in any of them;

- No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts;

- Submission of a satisfactory MCAT score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion;

- Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to February 1 of their freshman year for the 3+4 Early Acceptance Program, or by February 1 of their sophomore year for the 4+4 program; and

- Students in the "3+4" track may switch to the "4+4" track by notifying FDU's Pre-Health Professions Advisory Committee no later than December 1 of their third year of enrollment in the program.

### Medical 3+4 Phase II Admissions

#### Criteria:

Cumulative overall GPR: 3.50 or higher  
Cumulative science GPR: 3.20 or higher

Academic Index Score: 125

MCAT\*: 25 (at least 7 in each subcategory)

### Medical 4+4 Phase II Admissions

#### Criteria:

Cumulative overall GPR: 3.40

Cumulative science GPR: 3.20

Academic Index Score: 115

MCAT\*: 25 (at least 7 in each subcategory)

## Premedical Curricula

Students enrolled in the 4+4 years Early Acceptance Program will follow the curricula for the B.S. in biology (see pages 68 and 142), B.S. in biochemistry (see pages 66 and 141) or B.S. in chemistry (see pages 69 and 146).

*\*Students matriculating to LECOM in 2016 and later will be exempt from the MCAT requirement, provided that the minimum Academic Index Score requirement has been met and that the student has earned a grade of "C" or better in biochemistry and genetics.*

Under the provisions of the pre-osteopathic medicine accelerated program (3+4 years), students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 95 credits of course work leading to the B.S. in biology (preprofessional option). The curricula are as follows:

## Metropolitan Campus Phase I (3+4 Track)

1st Semester	Credits
BIOL1251, BIOL1253	
General Biology I (Lecture and Laboratory).....	4
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

## 2nd Semester

BIOL1252, BIOL1254	
General Biology II (Lecture and Laboratory).....	4
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and Argument.....	3
UNIV1002	
Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

## 3rd Semester

BIOL2150, BIOL2250	
Ecology and Field Biology (Lecture and Laboratory)	
or	
MBIO1209, MBIO1219	
Introduction to Marine Biology (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3



# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

	Credits
CHEM2265	
Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

## 4th Semester

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	18

## 5th Semester

BIOL2237, BIOL2239	
Human Structure and Function.....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

## 6th Semester

BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

## Florham Campus (3+4 Track)

<b>Biology Requirements</b>	Credits
BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory)...	4
BIOL3253, BIOL3254	
Comparative Anatomy (Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327	
General Physiology (Lecture and Laboratory).....	4

## Cognate Requirements (Chemistry, Mathematics, Physics)

CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2
MATH1107	
Precalculus.....	4
MATH1133	
Applied Statistics.....	3
MATH1203	
Calculus I.....	4

**Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:**

PHIL1440	
Biomedical Ethics.....	3
SPCH1107	
Fundamentals of Speech or	
COMM2099	
Professional Communications.....	3

## Two social and behavioral science classes

From either psychology, sociology or anthropology. Each class should be in a different discipline.

## B.S. in Biology/Doctor of Pharmacy Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in biology plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying biology, and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a “feeder” science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

## Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU’s School of Pharmacy and Health Sciences. Students not accepted into FDU’s School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biology/Pharm.D. combined degree and into another concentration.

## B.S. in Biology and Doctor of Pharmacy Combined Degree

<b>1st Semester</b>	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3

# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

	Credits	<b>4th Semester</b>	Credits	<b>7th Semester</b>	Credits
MATH2357		BIOL2210, BIOL2211		PHRM6100	
Applied Statistics I.....	3	Genetics (Lecture and Laboratory).....	4	Foundations in Pharmaceutical	
UNIV1001		CHEM2262		Science: Pharmacology,	
Transitioning to University Life.....	1	Organic Chemistry II.....	3	Medicinal Chemistry,	
	Total..... 15	CHEM2264		Pharmacokinetics.....	4
		Organic Chemistry Laboratory II.....	2	PHRM6101	
<b>2nd Semester</b>		UNIV2001		Foundations in Integrated	
BIOL1252		Cross-cultural Perspectives.....	3	Pharmacotherapy I: An	
General Biology II.....	3	Humanities Course*.....	3	Introduction to Pathophysiology,	
BIOL1254			Total..... 15	Genetics, Microbiology and	
Laboratory: General Biology II.....	1	<b>5th Semester</b>		Delivery of Care.....	3
CHEM1202		BIOL2257, BIOL2259	Credits	PHRM6201	
General Chemistry II.....	3	Human Structure and Function I		Pharmaceutics I: Physical Pharmacy.....	3
CHEM1204		(Lecture and Laboratory).....	4	PHRM6211	
General Chemistry Laboratory II.....	1	BIOL3225, BIOL3226		Pharmaceutical Calculations I.....	1
ENWR1002		General Microbiology		PHRM6301	
Composition II: Research and		(Lecture and Laboratory).....	4	Medical Communication and	
Argument.....	3	BIOL4900		Technical Writing.....	2
MATH		Biology Seminar I.....	1	PHRM6321	
Mathematics Sequence*.....	4	PHYS2201		Pharmacy Practice Law.....	2
UNIV1002		Physics Laboratory I.....	1	PHRM6401	
Preparing for Professional Life.....	1	PHYS2203		Professional Pharmacy Practice I:	
	Total..... 16	University Physics I.....	3	Health Care Delivery.....	3
		UNIV2002		PHRM6700	
<b>3rd Semester</b>		Global Issues.....	3	Beyond the Curriculum:	
BIOL2150, BIOL2250			Total..... 16	Foundations in Pharmacy	
Ecology and Field Biology		<b>6th Semester</b>		Education.....	0
(Lecture and Laboratory)		BIOL3357, BIOL3358			Total..... 18
or		Human Structure and Function II		<b>8th Semester</b>	
MBIO1209, MBIO1219		(Lecture and Laboratory).....	4	PHRM6102	
Introduction to Marine Biology		BIOL4240, BIOL4241		Integrated Pharmacotherapy II:	
(Lecture and Laboratory).....	4	Molecular Cell Biology		Gastrointestinal.....	3
CHEM2261		(Lecture and Laboratory).....	4	PHRM6103	
Organic Chemistry I.....	3	CHEM5281		Integrated Pharmacotherapy III:	
CHEM2265		Biochemistry I.....	3	Dermatology, Over-the-Counter	
Organic Chemistry Laboratory I.....	2	PHYS2202		Remedies and Self Care.....	3
MATH		PHYS2204		PHRM6104	
Mathematics Sequence*.....	4	Physics Laboratory II.....	1	Integrated Pharmacotherapy IV:	
Humanities Course**.....	3	University Physics II.....	3	Cardiology/Pulmonary I.....	3
	Total..... 16	SPCH		PHRM6111	
		Oral Communication Elective**.....	3	Integrated Pharmacotherapy II-IV:	
			Total..... 18	Conceptual Connections and	
				Patient Care.....	2
				PHRM6202	
				Pharmaceutics II – Oral Dosage	
				Forms and Biopharmaceutics/	
				Pharmacokinetics.....	2
				PHRM6402	
				Professional Pharmacy Practice II:	
				Communication in Health Care.....	2
				PHRM6701	
				Beyond the Curriculum:	
				Foundations in Pharmacy	
				Education (2).....	1
					Total..... 17

\*Students are required to include in the first year at least one semester of Calculus.

\*\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2238 The Global Art World.

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

\*\*Requirements consist of a three-credit Speech course.

# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

## School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7

	Credits		Credits
PHRM6501		PHRM8110	
Introductory Pharmacy Practice Experience (IPPE) I: Community.....	4	Integrated Pharmacotherapy X: Hematology and Oncology.....	3
PHRM7105		PHRM8111	
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....	4	Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care.....	2
PHRM7106		PHRM8112	
Integrated Pharmacotherapy VI: Infectious Disease.....	4	Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care.....	2
PHRM7107		PHRM8201	
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II.....	4	Pharmacogenomics and Personalized Medicine.....	2
PHRM7108		PHRM8301	
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.....	4	Pharmacoepidemiology, Pharmacoconomics and Health Outcomes.....	3
PHRM7111		PHRM8302	
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.....	2	Public Health and the Global Mission of Pharmacy.....	2
PHRM7112		PHRM8321	
Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.....	2	Health Care Ethics and Team Decision Making.....	1
PHRM7201		PHRM8402	
Pharmaceutics III: Dosage Forms and Drug Delivery Systems.....	2	Professional Pharmacy Practice IV: Pharmacy Leadership and Management.....	2
PHRM7202		PHRM8700	
Pharmaceutics IV: Sterile Products and Biopharmaceuticals.....	2	Beyond the Curriculum/ Preparing Practitioners (1).....	0
PHRM7301		PHRM8701	
Biostatistics.....	2	Beyond the Curriculum/ Preparing Practitioners (2).....	1
PHRM7302		PHRM9101	
Epidemiology and Study Design Evaluation.....	3	Advanced Pharmacy Practice Experience (APPE) I: Community.....	5
PHRM7401		PHRM9102	
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....	2	Advanced Pharmacy Practice Experience (APPE) II: Institutional...5	
PHRM7501		PHRM9103	
Introductory Pharmacy Practice Experience (IPPE) II: Institutional....	4	Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care.....	5
PHRM7700		PHRM9104	
Beyond the Curriculum: Expanding Horizons (1).....	0	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care...5	
PHRM7701		PHRM9201	
Beyond the Curriculum: Expanding Horizons (2).....	1	Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I.....	5
PHRM8109		PHRM9203	
Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations.....	3	Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I.....	5
		PHRM9205	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I.....	5
		PHRM9207	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I.....	5
		PHRM9209	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS I.....	5
		PHRM9211	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I.....	5
		PHRM9301	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I.....	5
		PHRM9303	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I.....	5
		PHRM9305	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I.....	5
		PHRM9307	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I.....	5
		PHRM9309	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I.....	5
		PHRM9311	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care I.....	5
		PHRM9313	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I.....	5
		PHRM9315	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health I.....	5
		PHRM9401	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information I.....	5
		PHRM9403	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety I.....	5
		PHRM9405	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I.....	5

# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

Credits	<b>Florham Campus</b>	<b>School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7</b>
	<b><i>B.S. in Biology and Doctor of Pharmacy Combined Degree</i></b>	
	<b><i>Major Requirements (24 credits)</i></b>	
	Credits	Credits
PHRM9407	BIOL1201	PHRM6501
Advanced Pharmacy Practice	Biological Diversity	Introductory Pharmacy Practice
Experience (APPE) VII: Elective –	(Lecture and Laboratory).....4	Experience (IPPE) I:
Specialty Pharmacy I.....5	BIOL1202	Community.....4
PHRM9409	Introduction to Molecules, Cells	PHRM7105
Advanced Pharmacy Practice	and Genes (Lecture and	Integrated Pharmacotherapy V:
Experience (APPE) VII: Elective –	Laboratory).....4	Neurology, Psychiatry and
Medical Device/Patient Safety I.....5	BIOL2003	Anesthesiology.....4
PHRM9501	Cell Biology (Lecture and Laboratory)....4	PHRM7106
Advanced Pharmacy Practice	BIOL3253	Integrated Pharmacotherapy VI:
Experience (APPE) VIII:	Comparative Anatomy	Infectious Disease.....4
Elective – Public Health I.....5	(Lecture and Laboratory).....4	PHRM7107
PHRM9503	BIOL3256	Integrated Pharmacotherapy VII:
Advanced Pharmacy Practice	Genetics (Lecture and Laboratory).....4	Cardiology/Pulmonary II.....4
Experience (APPE) VIII:	BIOL3337	PHRM7108
Elective – Industry I.....5	General Physiology (Lecture	Integrated Pharmacotherapy VIII:
PHRM9505	and Laboratory).....4	Endocrine, Urinary Tract,
Advanced Pharmacy Practice	<b><i>Cognate Requirements (19 credits)</i></b>	Renal and Reproductive Health.....4
Experience (APPE) VIII:	CHEM1201	PHRM7111
Elective – Research I.....5	General Chemistry I.....3	Integrated Pharmacotherapy V–VI:
PHRM9507	CHEM1203	Conceptual Connections and
Advanced Pharmacy Practice	General Chemistry Laboratory I.....1	Patient Care.....2
Experience (APPE) VIII:	CHEM1202	PHRM7112
Elective – Marketing I.....5	General Chemistry II.....3	Integrated Pharmacotherapy
PHRM9509	CHEM1204	VII–VIII: Conceptual
Advanced Pharmacy Practice	General Chemistry Laboratory II.....1	Connections and Patient Care.....2
Experience (APPE) VIII:	CHEM2261	PHRM7201
Elective – Patient Advocacy I.....5	Organic Chemistry I.....3	Pharmaceutics III: Dosage Forms
PHRM9511	CHEM2262	and Drug Delivery Systems.....2
Advanced Pharmacy Practice	Organic Chemistry II.....3	PHRM7202
Experience (APPE) VIII:	CHEM2263	Pharmaceutics IV: Sterile Products
Elective – Health Care	Organic Chemistry Laboratory I.....1	and Biopharmaceuticals.....2
Organization Management I.....5	CHEM2264	PHRM7301
PHRM9513	Organic Chemistry Laboratory II.....1	Biostatistics.....2
Advanced Pharmacy Practice	CHEM3281	PHRM7302
Experience (APPE) VIII:	Biochemistry I.....3	Epidemiology and Study Design
Elective – Informatics I.....5	MATH1203	Evaluation.....3
PHRM9515	Calculus I.....4	PHRM7401
Advanced Pharmacy Practice	PHYS1001, PHYS1011	Professional Pharmacy Practice
Experience (APPE) VIII:	General Physics I (Lecture	III: Drug Information,
Elective – Management I.....5	and Laboratory).....4	Informatics and Toxicology.....2
PHRM9517	PHYS1002, PHYS1012	PHRM7501
Advanced Pharmacy Practice	General Physics II (Lecture	Introductory Pharmacy Practice
Experience (APPE) VIII:	and Laboratory).....4	Experience (IPPE) II: Institutional....4
Elective – Regulatory I.....5		PHRM7700
PHRM9900		Beyond the Curriculum:
Pharmacy Capstone I.....1		Expanding Horizons (1).....0
PHRM9901		PHRM7701
Pharmacy Capstone II.....2		Beyond the Curriculum: Expanding
		Horizons (2).....1
		PHRM8109
		Integrated Pharmacotherapy IX:
		Autoimmune Diseases, Rare
		Diseases and Special Populations.....3

# Combined Degree Programs

B.S. in Biology/Doctor of Pharmacy

Credits		Credits		Credits	
	PHRM8110		PHRM9205		PHRM9405
	Integrated Pharmacotherapy X: Hematology and Oncology..... 3		Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I..... 5		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I..... 5
	PHRM8111		PHRM9207		PHRM9409
	Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care..... 2		Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I..... 5		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Specialty Pharmacy I..... 5
	PHRM8112		PHRM9209		PHRM9409
	Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care..... 2		Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS I..... 5		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I..... 5
	PHRM8201		PHRM9211		PHRM9501
	Pharmacogenomics and Personalized Medicine..... 2		Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Public Health I..... 5
	PHRM8301		PHRM9301		PHRM9503
	Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes..... 3		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Industry I..... 5
	PHRM8321		PHRM9303		PHRM9505
	Health Care Ethics and Team Decision Making..... 1		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Research I..... 5
	PHRM8302		PHRM9305		PHRM9507
	Public Health and the Global Mission of Pharmacy..... 2		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Marketing I..... 5
	PHRM8402		PHRM9307		PHRM9509
	Professional Pharmacy Practice IV: Pharmacy Leadership and Management..... 2		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Patient Advocacy I..... 5
	PHRM8700		PHRM9309		PHRM9511
	Beyond the Curriculum/ Preparing Practitioners (1)..... 0		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Health Care Organization Management I..... 5
	PHRM8701		PHRM9311		PHRM9513
	Beyond the Curriculum/ Preparing Practitioners (2)..... 1		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics I..... 5
			PHRM9313		PHRM9515
			Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Management I..... 5
	PHRM9101		PHRM9315		PHRM9517
	Advanced Pharmacy Practice Experience (APPE) I: Community.... 5		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health I..... 5		Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Regulatory I..... 5
	PHRM9102		PHRM9401		PHRM9900
	Advanced Pharmacy Practice Experience (APPE) II: Institutional... 5		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information I..... 5		Pharmacy Capstone I..... 1
	PHRM9103		PHRM9403		PHRM9901
	Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care..... 5		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety I..... 5		Pharmacy Capstone II..... 2
	PHRM9104				
	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care... 5				
	PHRM9201				
	Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I..... 5				
	PHRM9203				
	Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I..... 5				

# Combined Degree Programs

B.S. in Biology/Doctor of Physical Therapy

## B.S. in Biology/Doctor of Physical Therapy Six-year Program

(with FDU's Henry P. Becton School of Nursing and Allied Health in partnership with the Rutgers School of Health Professions [Rutgers SHP])

This physical therapy program is a collaborative program between Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students who successfully complete the program are awarded a B.S. in biology from FDU and a Doctor of Physical Therapy (D.P.T.) degree from Rutgers SHP.

This program offers an outstanding opportunity for talented and motivated students with a strong career interest to fast-track their careers. Students who wish to become physical therapists are provided with a state-of-the-art education that prepares them to be at the forefront of the physical therapy profession.

Students in the entry-level component of the program spend their first years at FDU, completing 92 credits of required courses (48 credits of University and Core requirements and 44 credits of major requirements). Students must formally apply for acceptance into the professional component at the Rutgers SHP Physical Therapy Program.

Once accepted to the professional component, students complete their fourth year of undergraduate study at Rutgers SHP. Upon completion of 38 credits at Rutgers SHP, Fairleigh Dickinson University will award the B.S. in biology degree.

After earning the B.S. degree, students are required to successfully complete an additional 72 credits in the D.P.T. program at Rutgers SHP, upon which Rutgers SHP will award the D.P.T. degree.

### Admission Requirements for the D.P.T. Program of Rutgers SHP

- Completion of all the University and Core requirements at FDU while maintaining an overall grade point ratio (GPR) of 3.00;
  - A minimum GPR of 3.00 in all required science and mathematics courses;
  - Demonstrated knowledge of the physical therapy profession through actual work or volunteer experience;
  - Evidence of community service;
  - Formal application to the Rutgers SHP Physical Therapy Program for the professional component of the program;

- Satisfactory scores on all three sections (verbal, quantitative and analytical) of the Graduate Record Examination (GRE);

- Three letters of recommendation; and
- Basic computer literacy, including file management, use of word processing and spreadsheet programs and use of email and internet.

### Undergraduate Sequence

#### Metropolitan Campus

1st Semester	Credits
BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory).....	4
CHEM1201 General Chemistry I.....	3
CHEM1203 General Chemistry Laboratory I.....	1
ENWR1001 Composition I: Rhetoric and Inquiry.....	3
MATH1107 Precalculus.....	4
UNIV1001 Transitioning to University Life.....	1
<b>Total.....</b>	<b>16</b>

#### 2nd Semester

BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).....	4
CHEM1202 General Chemistry II.....	3
CHEM1204 General Chemistry Laboratory II.....	1
ENWR1002 Composition II: Research and Argument.....	3
MATH1201 Calculus I.....	4
UNIV1002 Preparing for Professional Life.....	1
<b>Total.....</b>	<b>16</b>

#### 3rd Semester

BIOL2203, BIOL2223 Human Anatomy and Physiology I (Lecture and Laboratory).....	4
CHEM2261 Organic Chemistry I.....	3
CHEM2263 Organic Chemistry Laboratory I.....	2
CSCI1105 Survey of Computers and Computer Software.....	3
UNIV2001 Cross-cultural Perspectives.....	3
Oral Communication Elective.....	3
<b>Total.....</b>	<b>18</b>

#### 4th Semester

BIOL2204, BIOL2224 Human Anatomy and Physiology II (Lecture and Laboratory).....	4
CHEM2262 Organic Chemistry II.....	3
CHEM2264 Organic Chemistry Laboratory II.....	2
PSYC1103 General Psychology I.....	3
UNIV2002 Global Issues.....	3
<b>Total.....</b>	<b>15</b>

#### 5th Semester

MEDT1130 Bioethics.....	3
PHYS2201 Physics Laboratory I.....	1
PHYS2203 University Physics I.....	3
PSYC2201 Statistics.....	3
Humanities Course*.....	3
<b>Total.....</b>	<b>13</b>

#### 6th Semester

BIOL2125, BIOL2126 Microbiology for the Health Sciences (Lecture and Laboratory).....	4
NURS3208 Introduction to Health Care Economics.....	3
NURS4420 Health Care Management.....	3
PHYS2202 Physics Laboratory II.....	1
PHYS2204 University Physics II.....	3
<b>Total.....</b>	<b>14</b>

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2258 The Global Art World.

# Combined Degree Programs

B.S. in Biology/Doctor of Podiatric Medicine

## B.S. in Biology/Doctor of Podiatric Medicine Seven-year Program

(with New York College of Podiatric Medicine)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Podiatric Medicine (D.P.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.P.M.) by New York College of Podiatric Medicine.

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at New York College of Podiatric Medicine. A maximum of 32 credits from New York College of Podiatric Medicine may be transferred toward completion of the B.S. degree at FDU.

### Admission to the Combined Degree Program

High school seniors who satisfy the requirements for admission to the FDU preprofessional program may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit score in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/New York College of Podiatric Medicine Joint Admissions Committee.

### Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of C in all science and mathematics courses.

### Qualifying for Enrollment at New York College of Podiatric Medicine

Qualified students enrolled in the combined degree program will be guaranteed a seat at New York College of Podiatric Medicine for training in podiatry. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to New York College of Podiatric Medicine. Students need to obtain a grade of C or higher in required courses;
- A grade point ratio (GPR) of 3.00 or higher;
- Submission of a satisfactory Medical College Admission Test (MCAT) score (at least equal to the current minimum) in a timely fashion;
- A satisfactory evaluation in a personal interview;
- At least three letters of evaluation;
- Students currently enrolled at FDU

who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or the department of biological and allied health sciences at the Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine; and

Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering New York College of Podiatric Medicine must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine.

### Prepodiatry Curriculum

Under the provisions of the prepodiatry program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or the department of biological and allied health sciences, Florham Campus, for a minimum of 96 credits (University College) and 98 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

#### Florham Campus

Credits

#### Biology Requirements

BIOL1201, BIOL1203	
Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204	
Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004	
Cell Biology (Lecture and Laboratory)...	4
BIOL3009, BIOL3019	
Microbiology (Lecture and Laboratory).....	4
BIOL3253, BIOL3254	
Comparative Anatomy (Lecture and Laboratory).....	4
BIOL3256, BIOL3257	
Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327	
General Physiology (Lecture and Laboratory).....	4

#### Cognate Requirements

#### (Chemistry, Mathematics, Physics)

CHEM1201, CHEM1202	
General Chemistry I, II.....	6
CHEM1203, CHEM1204	
General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262	
Organic Chemistry I, II.....	6
CHEM2263, CHEM2264	
Organic Chemistry Laboratory I, II.....	2
CHEM3281	
Biochemistry I.....	3
MATH1107	
Precalculus.....	4
MATH1133	
Applied Statistics.....	3
MATH1203	
Calculus I.....	4

Students must complete the general education course plan (see pages 54–55) as well.

# Combined Degree Programs

B.S. in Biology/Doctor of Veterinary Medicine

## Metropolitan Campus

1st Semester	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
UNIV1001	
Transitioning to University Life.....	1
Total.....	12

## 2nd Semester

BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and	
Argument.....	3
UNIV1002	
Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

## 3rd Semester

BIOL2150, BIOL2250	
Ecology and Field Biology	
(Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1151 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Films, ART1157 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2238 The Global Art World.

## 4th Semester

BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course*.....	3
Total.....	18

## 5th Semester

5th Semester	Credits
BIOL2237, BIOL2239	
Human Structure and Function	
(Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology	
(Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

## 6th Semester

BIOL4240, BIOL4241	
Molecular Cell Biology.....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

## B.S. in Biology/Doctor of Veterinary Medicine Seven-year Program

(with Ross University School of Veterinary Medicine, Basseterre, St. Kitts, West Indies)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Veterinary Medicine (D.V.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.V.M.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

The program prepares students interested in pursuing a Doctor of Veterinary Medicine degree to become successful veterinarians in the United States. The program is an accelerated program which takes a little more than three years. The last three semesters are spent on the campus of one of the U.S. veterinary schools affiliated with Ross University School of Veterinary Medicine. The U.S. Department of Education has certified Ross University School of Veterinary Medicine as an eligible institution for the Title IV U.S. Federal Family Education Loan program.

Website: <http://www.rossu.edu/vet/>.

## Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio (GPR) of 3.40 or higher may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average and rank in class, along with letters of



# Combined Degree Programs

B.S. in Biology/Doctor of Veterinary Medicine

recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

## Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated pre-professional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio (CGPR) of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

## Qualifying for Enrollment at Ross University School of Veterinary Medicine

Qualified students enrolled in the combined degree program will be guaranteed a seat at Ross University for training in veterinary medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at Ross University School of Veterinary Medicine. Students need to obtain a GPR of 3.00 or higher in prerequisite courses with no D or F in any of the courses;

- A GPR of 3.25 or higher;

- Submission of a satisfactory Graduate Record Examinations (GRE) score in the 25th percentile or better in each category;

- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and

- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

## Preveterinary Curricula

Under the provisions of the preveterinary program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

## Florham Campus

### Biology Requirements

	Credits
BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).....	4
BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).....	4
BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)...	4
BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory).....	4
BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).....	4
BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory).....	4

### Cognate Requirements

#### (Chemistry, Mathematics, Physics)

CHEM1201, CHEM1202 General Chemistry I, II.....	6
CHEM1203, CHEM1204 General Chemistry Laboratory I, II.....	2
CHEM2261, CHEM2262 Organic Chemistry I, II.....	6
CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.....	2
CHEM3281 Biochemistry I.....	3
MATH1107 Precalculus.....	4
MATH1133 Applied Statistics.....	3
MATH1203 Calculus I.....	4

**Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:**

	Credits
PHIL1440 Biomedical Ethics.....	3
SPCH1107 Fundamentals of Speech or COMM2099 Professional Communications.....	3

## Metropolitan Campus

### 1st Semester

BIOL1251 General Biology I.....	3
BIOL1253 Laboratory: General Biology I.....	1
CHEM1201 General Chemistry I.....	3
CHEM1203 General Chemistry Laboratory I.....	1
ENWR1001 Composition I: Rhetoric and Inquiry.....	3
UNIV1001 Transitioning to University Life.....	1
Total.....	12

### 2nd Semester

BIOL1252 General Biology II.....	3
BIOL1254 Laboratory: General Biology II.....	1
CHEM1202 General Chemistry II.....	3
CHEM1204 General Chemistry Laboratory II.....	1
ENWR1002 Composition II: Research and Argument.....	3
UNIV1002 Preparing for Professional Life.....	1
Mathematics Sequence.....	4
Total.....	16

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

<b>3rd Semester</b>	Credits
BIOL2150, BIOL2250	
Ecology and Field Biology (Lecture and Laboratory).....	4
CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
Mathematics Sequence.....	4
Humanities Course*.....	3
Total.....	16

<b>4th Semester</b>	Credits
BIOL2210, BIOL2211	
Genetics (Lecture and Laboratory).....	4
BIOL2300	
Experimental Design.....	3
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
UNIV2002	
Global Issues.....	3
Humanities Course**.....	3
Total.....	18

<b>5th Semester</b>	Credits
BIOL2237, BIOL2239	
Human Structure and Function (Lecture and Laboratory).....	4
BIOL3225, BIOL3226	
General Microbiology (Lecture and Laboratory).....	4
BIOL4900	
Biology Seminar I.....	1
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Total.....	16

<b>6th Semester</b>	Credits
BIOL4240, BIOL4241	
Molecular Cell Biology (Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3281	
Biochemistry I.....	3
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
Oral Communication Elective.....	3
Total.....	17

## B.S. in Chemistry/Doctor of Pharmacy Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the the B.S. in chemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying chemistry (minimum of 30 credits, maximum of 60 credits), and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1150 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a “feeder” science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

## Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU’s School of Pharmacy and Health Sciences. Students not accepted into FDU’s School of Pharmacy and Health Sciences have the option of switching out of the B.S. in chemistry/Pharm.D. combined degree and into another concentration.

## B.S. in Chemistry and Doctor of Pharmacy Combined Degree

<b>1st Semester</b>	Credits
BIOL1251	
General Biology I.....	3
BIOL1253	
Laboratory: General Biology I.....	1
CHEM1201	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1153 History of Photography, ART1155 Cinema I: The Director’s Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2157 Global Roots of American Architecture or ART2238 The Global Art World.  
\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

	Credits
ENWR1001	
Composition I: Rhetoric and Inquiry.....	3
MATH1201	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

## 2nd Semester

BIOL1252	
General Biology II.....	3
BIOL1254	
Laboratory: General Biology II.....	1
CHEM1202	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENWR1002	
Composition II: Research and	
Argument.....	3
MATH2202	
Calculus II.....	4
UNIV1002	
Preparing for Professional Life.....	1
Total.....	16

## 3rd Semester

CHEM2261	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	2
PHYS2201	
Physics Laboratory I.....	1
PHYS2203	
University Physics I.....	3
UNIV2001	
Cross-cultural Perspectives.....	3
Humanities Course*	3
Total.....	15

\*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1135 Cinema I: The Director's Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World.

4th Semester	Credits
CHEM2262	
Organic Chemistry II.....	3
CHEM2264	
Organic Chemistry Laboratory II.....	2
PHYS2202	
Physics Laboratory II.....	1
PHYS2204	
University Physics II.....	3
SPCH	
Oral Communication Elective*.....	3
UNIV2002	
Global Issues.....	3
Humanities Course**	3
Total.....	18

## 5th Semester

BIOL2205, BIOL2223	
Human Anatomy and Physiology I	
(Lecture and Laboratory).....	4
BIOL4405	
Ethics in Science.....	3
CHEM3241, CHEM3243	
Physical Chemistry I	
(Lecture and Laboratory)	
or	
CHEM4233, CHEM4234	
Instrumental Analysis	
(Lecture and Laboratory).....	5
MATH2337	
Applied Statistics I.....	3
Total.....	15

## 6th Semester

BIOL2204, BIOL2224	
Human Anatomy and Physiology II	
(Lecture and Laboratory).....	4
CHEM3231, CHEM3232	
Analytical Chemistry	
(Lecture and Laboratory).....	4
BIOL4901	
Biology Seminar II.....	1
or	
CHEM3242, CHEM3244	
Physical Chemistry II	
(Lecture and Laboratory).....	5
CHEM3281	
Biochemistry I.....	3
Free Elective.....	3
Total.....	15

\*Requirements consist of a three-credit Speech course.

\*\*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

7th Semester	Credits
PHRM6100	
Foundations in Pharmaceutical	
Science: Pharmacology,	
Medicinal Chemistry,	
Pharmacokinetics.....	4
PHRM6101	
Foundations in Integrated	
Pharmacotherapy I: An	
Introduction to Pathophysiology,	
Genetics, Microbiology and	
Delivery of Care.....	3
PHRM6201	
Pharmaceutics I: Physical Pharmacy.....	3
PHRM6211	
Pharmaceutical Calculations I.....	1
PHRM6301	
Medical Communication and	
Technical Writing.....	2
PHRM6321	
Pharmacy Practice Law.....	2
PHRM6401	
Professional Pharmacy Practice I:	
Health Care Delivery.....	3
PHRM6700	
Beyond the Curriculum:	
Foundations in Pharmacy	
Education.....	0
Total.....	18

## 8th Semester

PHRM6102	
Integrated Pharmacotherapy II:	
Gastrointestinal.....	3
PHRM6103	
Integrated Pharmacotherapy III:	
Dermatology, Over-the-Counter	
Remedies and Self Care.....	3
PHRM6104	
Integrated Pharmacotherapy IV:	
Cardiology/Pulmonary I.....	3
PHRM6111	
Integrated Pharmacotherapy II-IV:	
Conceptual Connections and	
Patient Care.....	2
PHRM6202	
Pharmaceutics II – Oral Dosage	
Forms and Biopharmaceutics/	
Pharmacokinetics.....	2
PHRM6402	
Professional Pharmacy Practice II:	
Communication in Health Care.....	2
PHRM6701	
Beyond the Curriculum:	
Foundations in Pharmacy	
Education (1).....	1
Total.....	17

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

## **School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7**

	Credits		Credits
PHRM6501		PHRM8110	
Introductory Pharmacy Practice Experience (IPPE) I: Community.....	4	Integrated Pharmacotherapy X: Hematology and Oncology.....	3
PHRM7105		PHRM8111	
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....	4	Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care.....	2
PHRM7106		PHRM8112	
Integrated Pharmacotherapy VI: Infectious Disease.....	4	Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care.....	2
PHRM7107		PHRM8201	
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II.....	4	Pharmacogenomics and Personalized Medicine.....	2
PHRM7108		PHRM8301	
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.....	4	Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes.....	3
PHRM7111		PHRM8302	
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.....	2	Public Health and the Global Mission of Pharmacy.....	2
PHRM7112		PHRM8321	
Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.....	2	Health Care Ethics and Team Decision Making.....	1
PHRM7201		PHRM8402	
Pharmaceutics III: Dosage Forms and Drug Delivery Systems.....	2	Professional Pharmacy Practice IV: Pharmacy Leadership and Management.....	2
PHRM7202		PHRM8700	
Pharmaceutics IV: Sterile Products and Biopharmaceuticals.....	2	Beyond the Curriculum/Preparing Practitioners (1).....	0
PHRM7301		PHRM8701	
Biostatistics.....	2	Beyond the Curriculum/Preparing Practitioners (2).....	1
PHRM7302		PHRM9101	
Epidemiology and Study Design Evaluation.....	3	Advanced Pharmacy Practice Experience (APPE) I: Community.....	5
PHRM7401		PHRM9102	
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....	2	Advanced Pharmacy Practice Experience (APPE) II: Institutional...5	
PHRM7501		PHRM9103	
Introductory Pharmacy Practice Experience (IPPE) II: Institutional....4		Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care.....	5
PHRM7700		PHRM9104	
Beyond the Curriculum: Expanding Horizons (1).....	0	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care...5	
PHRM7701		PHRM9201	
Beyond the Curriculum: Expanding Horizons (2).....	1	Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I.....	5
PHRM8109		PHRM9203	
Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations.....	3	Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I.....	5
		PHRM9205	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I.....	5
		PHRM9207	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I.....	5
		PHRM9209	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS I.....	5
		PHRM9211	
		Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I.....	5
		PHRM9301	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I.....	5
		PHRM9303	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I.....	5
		PHRM9305	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I.....	5
		PHRM9307	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I.....	5
		PHRM9309	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I.....	5
		PHRM9311	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care I.....	5
		PHRM9313	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I.....	5
		PHRM9315	
		Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health I.....	5
		PHRM9401	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information I.....	5
		PHRM9403	
		Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety I.....	5

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

	Credits
PHRM9405	
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I.....	5
PHRM9407	
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Specialty Pharmacy I.....	5
PHRM9409	
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I.....	5
PHRM9501	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Public Health I.....	5
PHRM9503	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Industry I.....	5
PHRM9505	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Research I.....	5
PHRM9507	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Marketing I.....	5
PHRM9509	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Patient Advocacy I.....	5
PHRM9511	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Health Care Organization Management I.....	5
PHRM9513	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics I.....	5
PHRM9515	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Management I.....	5
PHRM9517	
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Regulatory I.....	5
PHRM9900	
Pharmacy Capstone I.....	1
PHRM9901	
Pharmacy Capstone II.....	2

## Florham Campus

### ***B.S. in Chemistry and Doctor of Pharmacy Combined Degree\****

<b>1st Semester</b>	Credits
BIOL1201, BIOL1211	
Biological Diversity.....	4
BIOL1203	
Lab: Biological Diversity.....	0
CHEM1201, CHEM1211	
General Chemistry I.....	3
CHEM1203	
General Chemistry Laboratory I.....	1
ENGW1101	
College Writing Workshop.....	3
MATH1203	
Calculus I.....	4
UNIV1001	
Transitioning to University Life.....	1
Total.....	16

### ***2nd Semester***

BIOL1202, BIOL1212	
Introduction to Molecules, Cells and Genes.....	4
BIOL1204	
Introduction to Molecules, Cells and Genes Lab.....	0
CHEM1202, CHEM1212	
General Chemistry II.....	3
CHEM1204	
General Chemistry Laboratory II.....	1
ENGW1102	
Research Writing Workshop.....	3
MATH2202	
Calculus II.....	4
Total.....	15

### ***3rd Semester***

BIOL1205	
Anatomy and Physiology I.....	4
BIOL1207	
Lab: Anatomy and Physiology I.....	0
CHEM2214	
Basic Inorganic Chemistry.....	4
CHEM2213	
Lab: Basic Inorganic Chemistry.....	0
CHEM2261, CHEM2265	
Organic Chemistry I.....	3
CHEM2263	
Organic Chemistry Laboratory I.....	3
PHYS2003, PHYS2023	
General Physics with Calculus I.....	4
PHYS2013	
Lab: General Physics with Calculus I.....	0
Total.....	16

### ***4th Semester***

	Credits
BIOL1206	
Anatomy and Physiology II.....	4
BIOL1208	
Lab: Anatomy and Physiology II.....	0
CHEM2262, CHEM2266	
Organic Chemistry II.....	3
CHEM2264	
Lab: Organic Chemistry II.....	1
MATH1133	
Applied Statistics.....	3
PHYS2004, PHYS2024	
General Physics with Calculus II.....	4
PHYS2014	
Lab: General Physics with Calculus II....	0
Total.....	15

### ***5th Semester***

CHEM3241, CHEM3245	
Physical Chemistry I.....	3
CHEM3243	
Lab: Physical Chemistry.....	2
CHEM3281	
Biochemistry I.....	3
CHEM338	
Biochemistry Laboratory.....	1
UNIV1002	
Preparing for Professional Life.....	1
Language Course.....	4
Total.....	14

### ***6th Semester***

CHEM2221	
Analytical Chemistry.....	4
CHEM2223	
Lab: Analytical Chemistry.....	0
CHEM3242, CHEM3246	
Physical Chemistry II.....	3
CHEM3244	
Physical Chemistry Laboratory II.....	2
ECON2001	
Introduction to Microeconomics.....	3
SPCH1107	
Fundamentals of Speech.....	3
Textual and Aesthetic Analysis.....	3
Total.....	18

\*This is not American Chemical Society (ACS) certified.

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

## 7th Semester Credits

PHRM6100	Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics.....	4
PHRM6101	Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care.....	3
PHRM6201	Pharmaceutics I: Physical Pharmacy.....	3
PHRM6211	Pharmaceutical Calculations I.....	1
PHRM6301	Medical Communication and Technical Writing.....	2
PHRM6321	Pharmacy Practice Law.....	2
PHRM6401	Professional Pharmacy Practice I: Health Care Delivery.....	3
PHRM6700	Beyond the Curriculum: Foundations in Pharmacy Education (1).....	0
	<b>Total.....</b>	<b>18</b>

## 8th Semester

PHRM6102	Integrated Pharmacotherapy II: Gastrointestinal.....	3
PHRM6103	Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care.....	3
PHRM6104	Integrated Pharmacotherapy IV: Cardiology/Pulmonary I.....	3
PHRM6111	Integrated Pharmacotherapy II-IV: Conceptual Connections and Patient Care.....	2
PHRM6202	Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/ Pharmacokinetics.....	2
PHRM6212	Pharmaceutical Calculations II.....	1
PHRM6402	Professional Pharmacy Practice II: Communication in Health Care.....	2
PHRM6701	Beyond the Curriculum: Foundations in Pharmacy Education (2).....	1
	<b>Total.....</b>	<b>17</b>

## School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7

PHRM6501	Introductory Pharmacy Practice Experience (IPPE) I: Community.....	4
PHRM7105	Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....	4
PHRM7106	Integrated Pharmacotherapy VI: Infectious Disease.....	4
PHRM7107	Integrated Pharmacotherapy VII: Cardiology/Pulmonary II.....	4
PHRM7108	Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.....	4
PHRM7111	Integrated Pharmacotherapy V-VI: Conceptual Connections and Patient Care.....	2
PHRM7112	Integrated Pharmacotherapy VII-VIII: Conceptual Connections and Patient Care.....	2
PHRM7201	Pharmaceutics III: Dosage Forms and Drug Delivery Systems.....	2
PHRM7202	Pharmaceutics IV: Sterile Products and Biopharmaceuticals.....	2
PHRM7301	Biostatistics.....	2
PHRM7302	Epidemiology and Study Design Evaluation.....	3
PHRM7401	Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....	2
PHRM7501	Introductory Pharmacy Practice Experience (IPPE) II: Institutional....	3
PHRM7700	Beyond the Curriculum: Expanding Horizons (1).....	0
PHRM7701	Beyond the Curriculum: Expanding Horizons (2).....	1

## Credits

PHRM8109	Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations.....	3
PHRM8110	Integrated Pharmacotherapy X: Hematology and Oncology.....	3
PHRM8111	Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.....	2
PHRM8112	Integrated Pharmacotherapy I-X: A Whole System Overview and Effecting Patient Care.....	2
PHRM8201	Pharmacogenomics and Personalized Medicine.....	2
PHRM8301	Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes.....	3
PHRM8302	Public Health and the Global Mission of Pharmacy.....	2
PHRM8321	Health Care Ethics and Team Decision Making.....	1
PHRM8402	Professional Pharmacy Practice IV: Pharmacy Leadership and Management.....	2
PHRM8700	Beyond the Curriculum/Preparing Practitioners (1).....	0
PHRM8701	Beyond the Curriculum/Preparing Practitioners (2).....	1
PHRM9101	Advanced Pharmacy Practice Experience (APPE) I: Community....	5
PHRM9102	Advanced Pharmacy Practice Experience (APPE) II: Institutional...	5
PHRM9103	Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care.....	5
PHRM9104	Advanced Pharmacy Practice Experience (APPE) IV: Acute Care...	5
PHRM9201	Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I.....	5

# Combined Degree Programs

B.S. in Chemistry/Doctor of Pharmacy

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	Credits		Credits
PHRM9203		PHRM9403	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) V: Elective –		Experience (APPE) VII: Elective –	
Ambulatory Care I.....	5	Medication Safety I.....	5
PHRM9205		PHRM9405	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) V: Elective –		Experience (APPE) VII: Elective –	
Community Compounding I.....	5	Managed Care I.....	5
PHRM9207		PHRM9407	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) V: Elective –		Experience (APPE) VII: Elective –	
Medication Therapy		Specialty Pharmacy I.....	5
Management I.....	5	PHRM9409	
PHRM9209		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VII: Elective –	
Experience (APPE) V: Elective –		Medical Device/Patient Safety I.....	5
HIV/AIDS I.....	5	PHRM9501	
PHRM9211		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) V: Elective –		Elective – Public Health I.....	5
Home Infusion I.....	5	PHRM9503	
PHRM9301		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) VI: Elective –		Elective – Industry I.....	5
Hospital Practice I.....	5	PHRM9505	
PHRM9303		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) VI: Elective –		Elective – Research I.....	5
Acute Care I.....	5	PHRM9507	
PHRM9305		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) VI: Elective –		Elective – Marketing I.....	5
Long Term Care I.....	5	PHRM9509	
PHRM9307		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) VI: Elective –		Elective – Patient Advocacy I.....	5
Infectious Disease I.....	5	PHRM9511	
PHRM9309		Advanced Pharmacy Practice	
Advanced Pharmacy Practice		Experience (APPE) VIII:	
Experience (APPE) VI: Elective –		Elective – Health Care	
Oncology I.....	5	Organization Management I.....	5
PHRM9311		PHRM9513	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Critical Care I.....	5	Elective – Informatics I.....	5
PHRM9313		PHRM9515	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Cardiology I.....	5	Elective – Management I.....	5
PHRM9315		PHRM9517	
Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VIII:	
Behavioral Health I.....	5	Elective – Regulatory I.....	5
PHRM9401		PHRM9900	
Advanced Pharmacy Practice		Pharmacy Capstone I.....	1
Experience (APPE) VII: Elective –		PHRM9901	
Drug Information I.....	5	Pharmacy Capstone II.....	2

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## International Studies

One of the missions of Fairleigh Dickinson University is to provide an international thrust in higher education that fosters in its students a more global orientation.

One of the ways that this commitment is expressed is through the administration of international campuses at Wroxton College, England, and in Vancouver, British Columbia, Canada.

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### Wroxton College

Wroxton Near Banbury,  
Oxfordshire, England

Nicholas D.J. Baldwin, Dean

#### General Information

Wroxton College has been in operation as the British campus of Fairleigh Dickinson University since 1965, when it opened as England's first American-owned college campus. During the interim years, over 3,300 students from more than 250 colleges and universities have taken advantage of this unique study-abroad opportunity. Participants may choose to stay for a full academic year or a fall or spring semester program or attend a four-week summer session.

The College is ideally suited to the pursuit of academic excellence. It is housed in Wroxton Abbey, a modernized Jacobean mansion occupying 56 acres of English countryside. The ancestral home of Lord North, prime minister of Great Britain during the American Revolution, the Abbey and grounds later became a part of Oxford University's Trinity College.

Situated in the beautiful Cotswold village of Wroxton, the College is secluded, yet close to the amenities of towns such as Oxford and Stratford-upon-Avon, home of the Royal Shakespeare Company. London is only one hour away by train. (Also see pages 8-9.)

#### Academic Program

With a British faculty and staff and a substantial library collection, the College offers fully accredited classes designed to make maximum use of its location, history and environment. Fall and spring semester course offerings include English theater and drama, literature, history, political science, sociology, fine arts, international business, economics and psychology as well as UNIV2001 Cross-cultural Perspectives and

UNIV2002 Global Issues. The method of academic instruction is the lecture/seminar and tutorial system commonly used in British universities. In addition to the full-time and part-time tutorial staff, visiting lecturers are drawn from the nearby universities of Birmingham and Oxford, as well as from those at Cambridge, London and elsewhere.

It is the policy of Wroxton College to supplement every student's academic experience with valuable cultural opportunities. To this end, an extensive program of tours and excursions is included. Visits to the theater, especially the Royal Shakespeare Company in Stratford, and to places and regions of national importance, such as the Houses of Parliament, are integral parts of the College's academic offerings.

International education is fast becoming a requirement for young people seeking professional careers in the 21st century. Studying abroad provides a uniquely rewarding complement to the home-campus classroom by combining learning through an alternative structure with exposure to new cultural situations. Wroxton College assembles an exceptional group of native British scholars whose years of experience benefit Fairleigh Dickinson University students and others seeking the challenge of a true learning adventure. The MS in hospitality management studies will also be offered at Wroxton.

#### Summer Session

Each summer, Wroxton College offers courses for both graduate and undergraduate credit.

#### Admission Requirements

The requirements for entry to the Wroxton College program are as follows:

1. Application is made to the FDU Study Abroad Office, Fairleigh Dickinson University, 285 Madison Avenue, Madison, New Jersey 07940.

2. Students must have a cumulative grade point ratio of 3.00 or better on a four-point system (or equivalent) as indicated by an official college transcript.

3. Students must be sophomores, juniors or seniors.

4. Students may come from FDU or other regionally accredited institutions in the United States. An application must be approved by the sending college or university through appropriate signatures before acceptance can be granted.

#### Information

Inquiries about Wroxton College should be directed to:

FDU Study Abroad Office  
Fairleigh Dickinson University  
285 Madison Avenue, M-MS0-03  
Madison, New Jersey 07940

#### Faculty & Administration

N.D.J. Baldwin, Dean, B.A. (University of Hull), Ph.D. (University of Exeter); C. Garrity, B.A., M.A., Ph.D. (University of Exeter); W. Hart, B.A., M.A. (Oxford Brookes University); L. Lee-Davies, M.B.A. (Henley Business School, University of Reading), Ph.D. (University of Chester); P. Mason, B.A., M.A., Ph.D. (University of Birmingham); A. Morris, B.A. (University of Hull), M.A., Ph.D. (University of Essex); K. Parsons, B.A. (University of Birmingham)

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## Vancouver Campus

842 Cambie Street, Vancouver  
British Columbia V6B 2P6  
Canada

Wilfred J. Zerbe, Campus Executive

### Mission and Vision

Vancouver Campus offers internationally accredited degree programs in business administration, information technology and individualized studies complemented by an enriching liberal arts program with an emphasis on global studies. Moreover, Vancouver Campus offers degree programs on a trimester calendar which enables students to complete their undergraduate studies in just three, rather than four years.

Vancouver, British Columbia, Canada, is a robust city with one of the most ethnically diverse communities in the world. The Vancouver Campus faculty and staff are equally diverse, representing a broad cross-section of ethnic, gender and linguistic diversity. Students are welcome from all over the world and are attracted to Vancouver Campus because of its location, academic offerings, faculty and staff, student diversity and academic and community support systems. Classes at the Vancouver Campus are small and energetic. The frequency and intensity of student interaction with faculty, staff and local communities is high. Support systems are customized to maximize student success and are integrated with academic progress. Teaching and learning experiences are guided by the needs of students with an appropriate blend of individual, small and large group work, problem-solving strategies and technology-rich resources. At the Vancouver Campus, faculty and students are partners in the learning process and work together to create new knowledge and solutions to problems of local and international importance.

The Vancouver Campus, located in the fashionable Yaletown section of Vancouver, was purposefully built for delivery of academic programs and to facilitate instructional strategies. Along with a technology-enhanced lecture theater, there are four multipurpose classrooms, one information technology laboratory and classroom and two general computer laboratories and classrooms. In addition, there

are two seminar/presentation rooms, a library and information resource center and a comfortable student lounge. The neighborhood is safe, cosmopolitan, engaging and is an important part of campus life. In addition, Vancouver Campus has intramural athletic programs in badminton, boating, soccer and volleyball. There are trips, tours and recreational activities organized by student groups throughout the year.

### Living in Vancouver

Vancouver is consistently rated one of the most livable cities in the world. It is surrounded by some of the most stunning natural beauty in the world, including mountains, the Pacific Ocean, a rainforest, parks and beaches. The population of the city of Vancouver is approximately 600,000; Greater Vancouver's estimated total population is more than 2.4 million. Vancouver is a very cosmopolitan and multicultural city. While most of the population speaks English as either a first or second language, it is a very multicultural environment, in which many languages are spoken and diverse ethnic traditions are followed. Four out of every 10 residents are immigrants to the city. After English and Chinese, the most common languages spoken are Punjabi, German, Italian, French, Tagalog (Filipino) and Spanish. Warmed by Pacific Ocean currents and protected by a range of mountains, Vancouver enjoys mild temperatures year-round. From the high 70s Fahrenheit (low 20s Celsius) in summer to a mild mid 40s Fahrenheit (0° to 5° Celsius) in winter, the climate is always mild and hospitable. Winters are wet, but it rarely snows, except on local ski hills. Unlike many cities in North America, Vancouver has no highways cutting through it, making it possible to walk almost anywhere. The city also boasts an outstanding public transportation system that features buses, a sky train, sea bus and a commuter rail service.

### Academic Programs

#### Pre-University Program

The Vancouver Campus "Pre-University Program" provides advanced English-language training for students who meet the University's admission standards but require additional training in English (in

speaking and/or writing) prior to matriculating in one of the three degree programs offered by the University in Vancouver — in business administration, information technology or individualized studies. Students enrolled in this program, in addition to English-speaking and writing courses, can take up to five University courses as part of their "Pre-University Program" (two mathematics courses, a business- or information technology-based English course, a computer technology course and Freshman Seminar).

Students admitted to the "Pre-University Program" shall carry a conditional admittance to the University but must successfully complete one or two semesters (up to 14 credits) of course work during their Pre-University Program before matriculating in one of the University's three degree programs.

Only students with a TOEFL score of 520 or higher (190 on the computer-based test or 68 on the internet-based test) or an International English Language Testing System (IELTS) score of 5.0 or higher shall be considered for admission to the "Pre-University Program." Moreover, upon arrival at the University's campus in Vancouver, all students shall be tested in English and mathematics in order to determine the level at which they must begin the program. The English and mathematics tests administered to students prior to entering the "Pre-University Program" will be equivalent to those administered to first-time, full-time freshmen entering the University's New Jersey campuses.

#### Bachelor of Science in Business Administration

Students enrolled in the B.S. in business administration program at the University's campus in Vancouver are required to complete a concentration in international business.

The primary educational objective of the business administration program at Fairleigh Dickinson University is to facilitate, in its students, the development of competencies that are necessary to skillfully plan, organize, direct and manage the functions and processes within a firm or organization. Graduates of this AACSB-accredited program will possess both the educational knowledge and business acumen necessary to assume positions of responsibility in a global business commu-

# International Studies

nity characterized by rapid technological and social change and/or pursue graduate-level study in business or a related field.

Students in the B.S. in business administration program must complete a minimum of 121 credit hours of course work. Of the 121 credit hours, 8 will be in the University's required and nationally recognized University Core curriculum, 36 are in general education requirements, 41 are in the Silberman College of Business' core curriculum, 21 are in advanced courses specific to the business administration major with a concentration in international business and 15 are in electives that can be applied toward an optional minor in finance or marketing or a concentration in information technology.

The curriculum plan (also referred to as a "check sheet" or "degree audit") for each of the four programs options can be viewed and downloaded at <http://view2.fdu.edu/vancouver-campus/academic-programs/bs-business-admin-ib-conc/>.

## **Bachelor of Science in Information Technology with a Minor in Business Administration and Concentrations in:**

- Network and System Administration
- Web-development Technology

The overarching goal of this program is to prepare students as "information technologists" and professionals who can assist general users, including individuals and organizations, in evaluating needs and solving problems related to information technology (IT) as well as in applying IT effectively in a global work environment driven by rapidly changing technology.

The primary educational objective of the B.S. in information technology program is to produce graduates who can enter into and advance in the professions of IT, management information systems and business administration, as well as to continue their education and obtain advanced degrees in these and related fields. With regard to program outcomes, graduates must be able to evaluate current and emerging technologies; identify user needs; design user-friendly interfaces; apply, configure and manage these technologies, needs and interfaces; assess their impact on individuals, organizations and the environment; and apply fundamental business concepts and strategies in doing so.

Students in the B.S. in information technology program must complete a minimum of 130 credit hours of course work. The distribution is:

	Credits
Mathematics, Science and Programming Requirements.....	18
Liberal Arts Requirements.....	34
IT Core Requirements.....	48
Business Administration Minor.....	18
Free Electives.....	12
Total....	130

The IT Core Requirements provide students with a broad, integrated education in selected IT areas such as computer networking, computer-based systems, website development and management, digital media publishing, databases and application development. The minor in business administration provides students with the fundamental knowledge and skills needed in the field of business administration. Students also obtain a well-rounded education from the requirements in the liberal arts, mathematics, science and programming. Descriptions of all courses can be viewed at <http://view2.fdu.edu/vancouver-campus/academic-programs/bs-information-technology/>.

The concentration in network and system administration allows students to learn how to plan, customize and manage secure network and operating-system configurations for optimum business applications. Students develop expertise to plan and deploy optimum IT hardware/software system configurations based upon the needs of enterprise business applications.

The concentration in web-development technology allows students to learn how to plan, design and maintain professional-quality websites and internet applications for e-commerce and other business applications. Students develop skill sets to plan, develop and maintain customer-friendly internet applications to enhance e-commerce, gaming and other business applications.

## **Bachelor of Arts in Individualized Studies with Specializations in:**

- Applied Technology
- Applied Technology and Business
- Applied Technology and Communications
- Applied Technology and International Relations
- Business
- Business and Communications
- Business and International Relations
- Communications
- Communications and International Relations
- Disaster and Emergency Management
- Health and Human Services
- Homeland Security Studies
- Hospitality and Tourism Management
- International Relations
- Leadership Administration
- Security and Terrorism Studies
- Sports Administration Studies

The Bachelor of Arts in individualized studies program is a four-year degree program structured to meet the educational needs of both traditional and nontraditional (adult) students. In addition to preparing students for careers in professions including business, technology and hospitality and tourism management, the Bachelor of Arts in individualized studies program prepares students to enter graduate programs such as the Master of Business Administration, Master of Administrative Science or Master of Public Administration.

The individualized studies curriculum includes an introduction to management theory and practice; human resources management and behavior; quantitative methods including accounting, marketing and decision-making in complex organizations; and leadership, among other things. In addition, the curriculum permits students to focus on a single area of study by combining liberal arts courses with career-related specializations. The result is a degree program that is immediately appealing to graduates of two-year colleges who have completed a significant amount of their degree requirements and to mature adults who bring to the University traditional course work completed over a period of years at a number of institutions, a history of work and life experience that can be equated with credit-bearing courses

and the desire, commitment and self-discipline to complete the degree requirements of the Bachelor of Arts in individualized studies program.

Specific requirements for completion of the Bachelor of Arts degree in individualized studies include 120 credits: 18 credits in communication, mathematics and computer science; 24 credits in the liberal arts and sciences; 12 credits in University Core courses; 3 credits in a course with an international perspective; 18–36 credits in specialization courses; and 27–45 credits in elective courses.

## Admission Requirements

1. A completed FDU application form.
2. Payment of an application fee.
3. Official or notarized secondary/high school transcripts and all relevant examination results.
4. Proof of English proficiency.
5. Two letters of recommendation.
6. The FDU Scholarship Application (required only if applying for a scholarship).
7. Advanced Standing: Freshmen who have completed Advanced Placement (AP) or International Baccalaureate (IB) exams, students with General Certificate of Education (GCE) A-level courses and students who have taken course work at another university may be eligible for credit transfer. Students should submit all relevant scores as soon as they are available.

## For More Information

Vancouver Campus  
Office of Admissions  
842 Cambie Street  
Vancouver, BC V6B 2P6  
(604) 682-8112; 1-877-338-8002 Toll Free  
(U.S. and Canada)  
vancouver@fdu.edu

## Faculty & Administration

W.J. Zerbe, Campus Executive, B.A., M.A., Ph.D. (University of British Columbia); D. O'Reilly, Deputy Campus Executive and Director of Learning Resources and Support Programs and Business Manager, B.Comm. (University College Dublin, Ireland), M.B.A. (Simon Fraser University); W.A. Aroca, Lecturer, B.A. (Bowling Green State University), M.A. (Royal Rhodes University); B. Assadi, Lecturer, B.A. (University of British Columbia), D.B.M., M.B.A. (University of Phoenix); J. Bachman, Assistant Professor, B.Sc., M.Ed., M.N.P. (University of Georgia), Ph.D. (Clemson University); C. Bygrave, Assistant Professor, B.B.A. (Simon Fraser University), M.B.A., Ph.D. (Saint Mary's University); A. Garg, Assistant Professor, Associate Director of Administrative Science and Coordinator of Bachelor of Arts in Individualized Studies Program, B.S. (National Institute of Technology, India), M.B.A. (Kurukshetra University, India), Ph.D. (Guru Gobind Singh Indraprastha University, India); J. Gifford, Associate Professor and Director of University Core Program, B.A. (Simon Fraser University), M.A. (California State University, Dominguez Hills), Ph.D. (University of Alberta); V. Janarthanan, Assistant Professor and Program Coordinator of Information Technology Program, B-Tech (Regional Engineering College, Jalandhar, India), M.A.Sc., Ph.D. (Concordia University); I. Krysa, Assistant Professor, B.A., M.A., Ph.D. (St. Mary's University); P. MacIntyre, Assistant Professor, B.Eng. (Dalhousie University), M.B.A. (University of British Columbia); M. McKay, Lecturer, B.A., M.A. (University of British Columbia); S. Mukherjee, Lecturer, B.E. (Jadavpur University, India), M.S., Ph.D. (University of Maryland); J. Reid, Lecturer, B.A. (University of Salford, England), M.B.A. (Aston University, England); Ph.D. (Carleton University); L. Wang, Associate Professor, L.L.B. (South-Central University, China), M.A. (University of New Brunswick); Ph.D. (University of Alberta); G. Dreher, Director of Global Scholars Program, Ph.D. (University of British Columbia); J. Mojtabavi, Director of Student Services, B.H.K. (University of British Columbia), M.A.S. (Fairleigh Dickinson University); J. Lee, Career Services Manager, B.A. (Simon Fraser University); J. Cho, Career and Student Services Assistant, M.A.S. (Fairleigh Dickinson Univer-

sity); E. Kennedy, HR Adviser, M.Sc. ISBP (University College Cork, Ireland), B.Bus. (Cork Institute of Technology, Ireland); N. Kharitonova, Director of Admissions, B.A., Ph.D. (Manitogorsk State University, Russia); J. Fiorentino, Associate Director of Admissions, B.A. (Pontifical Catholic University, Brazil), B.A. (Fairleigh Dickinson University); M.B. Concepcion, Admissions Assistant, M.A.S. (Fairleigh Dickinson University); N. Otsubo, Admissions Assistant, B.A. (Kyoto University of Foreign Studies, Japan); J. Passos Da Camara, Admissions Assistant, M.A.S. (Fairleigh Dickinson University), B.Comm. (Murray State University); A. Yan, Director of Marketing and Recruitment, B.S. (Agricultural University of China, Beijing), M.A.S. (Fairleigh Dickinson University); G.E. Lee, Associate Director of Marketing and Recruitment, B.B.A. (Sprott Shaw Degree College), M.B.A. (New York Institute of Technology); A. Gava, Assistant Director of Marketing and Recruitment, M.B.A. (Sae Caetano do Sul University, Brazil), B.A. (Metodista University, Brazil); E. Davidson, Student Recruitment Officer, B.A. (Fairleigh Dickinson University); A. Hernandez Pulido, Director of Enrollment Services, A.A. (Capilano University), B.A. (Simon Fraser University), M.A.S. (Fairleigh Dickinson University); K. Enriquez Ramos, Administrative Assistant, B.A. (Universidad Cristobal Colon, Mexico); S. Kwon, Administrative Assistant, B.A. (Silla University, South Korea); V. Liu, Administrative Assistant, H.Dip. (Arbutus College); J. Martell, Director of Technical Operations, B.Sc. (University of British Columbia); E. Resuli, Senior Information Technology Specialist, B.EE. (Polytechnic University of Tirana, Albania); S. Hoheisel, Academic Support Assistant, B.A. (Fairleigh Dickinson University); S. Lora Nava, Receptionist/Administrative Assistant, B.A. (Fairleigh Dickinson University)

# Reserve Officers' Training Corps (ROTC)

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## Reserve Officers' Training Corps (ROTC)

### Army ROTC

The Department of Military Science at Seton Hall University contributes to Fairleigh Dickinson University's effort of developing and educating global, adaptable, strategically thinking and flexible leaders of tomorrow by administering the Army Reserve Officer Training Corps (ROTC) program. Through the ROTC program's course work and practical experience, students will develop decision-making, team-building and time-management skills — leadership qualities that are essential to success in any field and are highly valued in the private sector. The program provides an opportunity to examine service in the United States Army while earning a baccalaureate degree.

A student who completes the program may earn a commission in the Regular Army, Army Reserve or National Guard. Students may participate in the first two years of Army ROTC with no commitment to military service. Completing the program guarantees a student a job upon graduation serving in career fields like the Nurse Corps, aviation, engineer, infantry, military intelligence and the Signal Corps, to name a few.

Students may choose to major in any academic discipline, as long as it leads toward a baccalaureate or graduate degree.

The Army ROTC program is divided into two parts, the Basic Course and the Advanced Course.

Most courses are acceptable as elective subjects (see "Credits Toward a Degree") or a student can follow a prescribed curriculum leading to a commission as an officer in the U.S. Army. The courses are designed to aid students by providing leadership and management experience; providing opportunity for a military career; developing self-discipline, physical stamina and poise; enhancing development of management skills; developing qualities basic to success in any career; and providing academic credit for course completion.

The department of military science offers a traditional four-year program of instruction consisting of a Basic Course and an Advanced Course and a two-year program that requires only the Advanced

Course. Depending on the degree program, a maximum of 18 credits in ROTC courses may be applied to the bachelor's degree, with the approval of the student's academic adviser.

### Cross-enrollment

FDU students enroll in the Army ROTC program at Seton Hall University through FDU as cross-enrolled cadets. ROTC courses are listed in the FDU *Undergraduate Studies Bulletin*, but the courses are conducted at Seton Hall, South Orange, New Jersey. Cross-enrolled students may take ROTC courses for credit or no credit by registering through FDU.

Classes are held on the campus of Seton Hall University, where students from numerous colleges and universities in northern New Jersey take advantage of the opportunity to participate in ROTC.

For individuals presently serving in the National Guard or Reserve, or those with prior military service interested in the National Guard or Reserve, ROTC offers an opportunity to participate as an officer cadet while gaining valuable leadership experience in a unit through the Simultaneous Membership Program.

Cadets may belong to any of the special ROTC groups, such as the Ranger Challenge Team or Color Guard. Cadets may also apply for additional training, normally conducted during the summer, such as parachuting and mountaineering. Involvement in other activities that broaden horizons and experiences is encouraged. Questions should be directed to Rene Sumayoa, GS, enrollment and admissions operations officer, Seton Hall University Army ROTC, 400 South Orange Avenue, South Orange, New Jersey 07079, at (973) 313-6255 or (858) 864-8111.

### Basic Course

The Basic Course consists of the first two years of the program, typically completed in the freshman and sophomore years. The first year focuses on the Army profession, basic leadership and officership. The second year concentrates on the experiential examination of managing, decision-making and group dynamics.

Students are placed in a wide variety of group exercises designed to emphasize various professional-leadership competencies and insights. These events are held both inside the classroom and in outdoor settings. The instructor, acting as a facilitator, helps guide student processing, or after-action reviews of the events, to derive the leadership, group dynamics and problem-solving lessons that the exercises offer. Practical "life skills" are emphasized throughout the two years.

By the end of the Basic Course, students should possess a basic understanding of the unique aspects of leading, individual physical fitness and a healthy lifestyle. The lessons are designed to explore leadership principles and theories, inspire intellectual curiosity and stimulate self-study. Upon completion of the course, students are eligible to enter the Advanced Course.

The Basic Course imposes no military obligation on the part of students. Basic Course requirements also can be fulfilled through attendance at an ROTC Leadership Training Course (LTC), a six-week training course held each summer, or by having prior military service. LTC can count as an internship, awarding a student with credits applicable toward his or her degree, with prior approval by the student's academic adviser. Basic Course requirements also can be waived by the professor of military science, on a case-by-case basis, for students who participated in a Junior ROTC high school program.

### Advanced Course

The Advanced Course is for students in their junior and senior years or with four semesters of graduate school remaining. Course work includes military history and ethics, leadership development, tactics and national security issues and concerns. The Advanced Course also includes a requirement to attend a five-week Leader Development Assessment Course (LDAC), held during the summer between the junior and senior years, in which the student is further trained and evaluated for leadership potential. While at LDAC, students receive pay, travel expenses and benefits. LDAC can count as an internship, awarding a student with credits applicable toward their

# Reserve Officers' Training Corps (ROTC)

degree, with prior approval by the student's academic adviser.

In keeping with the military's demanding challenges, physical fitness is an important part of the ROTC experience. All cadets participate in supervised physical training designed to gradually bring individuals to a high level of health and fitness.

All students are required to complete undergraduate courses in designated fields of study known as the professional military education component. Cadets must take courses in written and oral communications, military history and computer literacy. Numerous courses, including the core courses for most degrees offered at Fairleigh Dickinson University, fulfill these requirements. Students also are encouraged to take a course in management or national security.

## Four-, Three- or Two-year Programs

Graduate or undergraduate students can complete the ROTC requirements through a four-year, three-year or two-year program. The four-year and three-year programs involve the Basic and Advanced Courses; the two-year program involves only the Advanced Course. The core course work includes 16 to 26 credits in topics such as the art and science of leadership, ethics, values, integrity, honor, problem-solving skills, military history, physical training and adventure training. Depending on the student's degree program, a maximum of 26 credits in ROTC courses may be applied to the bachelor's degree, with the approval of the student's academic adviser.

## Four-year Program

The four-year program is divided into two parts, the Basic Course and the Advanced Course. The Basic Course is typically completed in the first two years of college. Unless a student has accepted a scholarship, the Basic Course is voluntary, and all students are eligible. After completing the Basic Course, students who meet the physical and academic standards, and have demonstrated leadership potential contract into the Advanced Course.

The Advanced Course includes four consecutive semesters of course work and completion of the Leader Development Assessment Course (LDAC). LDAC is a paid, six-week leadership course conducted at Fort Lewis, Wash. Typically stu-

dents attend LDAC during the summer after the first year of the Advanced Course.

## Three-year Program

The three-year program is designed for students who want to start ROTC as sophomores or graduate students with six semesters remaining to complete their degrees. Students complete the Basic Course in one year instead of two then complete the Advanced Course in due course. This method is referred to as compression. Students completing the Basic Course as compression students go on to contract in the Advanced Course.

## Two-year Program

The two-year program enables eligible students to contract in the Advanced Course at the time they are academic juniors or seniors or graduate students with four semesters remaining before graduation. Eligible students are those with one or more of the following:

- Prior service in the military;
- Membership in the National Guard or Reserve with basic training completed;
- Completion of three or more years of Junior ROTC in high school;
- Completion of the Army ROTC Leaders Training Course (LTC); and/or
- Qualification, selection and completion of an accelerated commissioning program.

Students who are members of the National Guard or Army Reserve can participate in the Simultaneous Membership Program (SMP), which provides additional income and the opportunity to serve in a leadership position in the student's unit of choice.

The two-year program is designed for sophomores who have not taken ROTC or students entering a two-year postgraduate program. To enter the two-year program, completion of the Basic Course, Basic Camp or Basic Training is required.

Students eligible for the two-year program may complete requirements for their commission in two years. Students in the two-year program are fully eligible for financial assistance and may apply for an Army scholarship.

## Benefits

The ROTC program offers the best leadership course to college students with or without military experience.

## Personal Development

The program allows students to gain the confidence to lead and manage while improving self-discipline, physical fitness and mental and physical endurance. Learning how to lead effectively and efficiently is a marketable asset.

## Scholarships

A wide variety of scholarships are available and application can be made at anytime during the year. Scholarships range from two to four years in duration with extensions possible for high-demanding majors such as nursing or engineering. Scholarships provide full coverage of either tuition and mandatory fees or room and board. Scholarship recipients choose to apply their scholarship toward tuition or room/board (not both). The scholarship also includes \$1,200 per year toward books and fees.

Two-year scholarships are available for members of the National Guard and Army Reserve. These scholarships feature continued Reserve duty after commissioning and guaranteed branching in the student's unit. Scholarships for two to four years are also available and include duty in the active Army after commissioning.

The ROTC Program awards two-, three- and four-year scholarships on a competitive basis to outstanding young people who are interested in the Army as a career. The scholarships provide up to \$12,800.00 per year for tuition, \$450.00 as a textbook allowance and a monetary allowance of \$150.00 per month, for up to 10 months of each school year. Any U.S. citizen attending a college or university as a full-time student may apply. Scholarship inquiries should be directed to the department of military science, (973) 763-3078.

## Guaranteed Job After Graduation

Upon commissioning, students have a full-time job in the active Army or a part-time job in the National Guard or Army Reserve. The military obligation of service is eight years after commissioning (four years active Army and four years in the Reserve component, or eight years in the National Guard or Army Reserve). The type of obligation is determined at the time of contracting in the Advanced Course and type of scholarships a student selects. Students are selected for a specific branch depending on factors such as their interest, academic achievement, Leader Development Assessment Course (LDAC) performance rating and the needs of the Army.

# Reserve Officers' Training Corps (ROTC)

## Income

All contracted students receive a monthly stipend: \$300 for freshmen, \$350 for sophomores, \$450 for juniors or first-year Advanced Course students and \$500 for seniors or second-year Advanced Course students. Contracted students receive a stipend for 10 months of the year. Students with prior service, SMP cadets and members of the National Guard or Army Reserve may be eligible for Montgomery GI Bill (MGIB) benefits, financial assistance or reimbursement for tuition and an additional monthly incentive.

## For Information

For more information concerning the program or Army scholarships, contact Rene Sumayoa, GS, enrollment and admissions operations officer, Seton Hall University Army ROTC, 400 South Orange Avenue, South Orange, New Jersey 07079, at (973) 313-6255 or (858) 864-8111.; or visit the web at <http://armyrotc.com/edu/setonhall/index.htm>.

## Courses

### Basic Courses

	Credits
ROTC1101 or ROTC0101	
Leadership and Personal Development*.....	2/0
ROTC1102 or ROTC0102	
Introduction to Tactical Leadership*....	2/0
ROTC2201 or ROTC0201	
Innovative Team Leadership*.....	3/0
ROTC2202 or ROTC0202	
Foundations of Tactical Leadership*..	3/0

### Advanced Courses

ROTC1115, ROTC1125, ROTC1135, ROTC1145, ROTC1155, ROTC1165, ROTC1175, ROTC1185	
or	
ROTC0115, ROTC0125, ROTC0135, ROTC0145, ROTC0155, ROTC0165, ROTC0175, ROTC0185	
Physical Fitness: Developing Personal and Organizational Physical Fitness Programs*.....	1/0
ROTC3301 or ROTC0301	
Adaptive Tactical Leadership*.....	3/0

\*Note: All qualified enrolled students must take Leadership Laboratory and Physical Fitness as these are corequisites to all ROTC lecture courses.

## Credits

ROTC3302 or ROTC0302	
Leadership in Changing Environments*.....	3/0
ROTC4401 or ROTC0401	
Developing Adaptive Leaders*.....	3/0
ROTC4402 or ROTC0402	
Leadership in a Complex World*.....	3/0
ROTC5500-ROTC5507 or ROTC0050-ROTC0057	
Leadership Laboratory: Applied Leadership and Management*.....	1/0

## Course Descriptions

### Basic

#### ROTC1101 or ROTC0101

##### 2 or 0 Credits Leadership and Personal Development

This course introduces students to the personal challenges and competencies that are critical for effective leadership. Instructors explain and illustrate how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness and stress management relate to leadership (in both the civilian and military environments), officership, the Army profession and daily life. Leadership principles within the current context of a university are emphasized. Application is also made to leadership in military and civilian settings that include government and corporate and non-profit organizations. Corequisites: ROTC5500 or ROTC0050 Leadership Laboratory: Applied Leadership and Management and ROTC1115 or ROTC0115 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

#### ROTC1102 or ROTC0102

##### 2 or 0 Credits Introduction to Tactical Leadership

This course provides an overview of leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Students explore dimensions of leadership values, attributes, skills and actions in the context of practical, hands-on and interactive exercises and scenarios. Students apply learning to their immediate university context as well as to a variety of military, government, corporate and nonprofit situations. Corequisites: ROTC5501 or ROTC0551 Leadership Laboratory: Applied Leadership and Management and ROTC1125 or ROTC0125 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

\*Note: All qualified enrolled students must take Leadership Laboratory and Physical Fitness as these are corequisites to all ROTC lecture courses.

#### ROTC2201 or ROTC0201

##### 3 or 0 Credits

##### Innovative Team Leadership

This course explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of much of modern leadership frameworks (trait and behavior theories). Students practice aspects of personal motivation and team-building in the context of planning, executing and assessing team exercises and participating in Leadership Laboratories. Students study historical leaders from a variety of backgrounds: from Lincoln, Grant and Lee to Gandhi, Kennedy and Mother Teresa. Corequisites: ROTC5502 or ROTC0552 Leadership Laboratory: Applied Leadership and Management and ROTC1135 or ROTC0135 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

#### ROTC2202 or ROTC0202

##### 3 or 0 Credits

##### Foundations of Tactical Leadership

This course examines the challenges of leading teams in complex contemporary operating environments. Instructors highlight course-of-action development, analysis, the execution of orders and the achievement of mission success. Students develop greater self-awareness as they assess their own leadership styles and practice communication and team-building skills while studying the theoretical basis of situational and contingent leadership. Students analyze recent and historical military case studies to gain insight into the importance and practice of teamwork and techniques in real-world scenarios. Parallels are drawn to the competitive and cross-cultural environments of most modern corporations. Corequisites: ROTC5503 or ROTC0553 Leadership Laboratory: Applied Leadership and Management and ROTC1145 or ROTC0145 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

### Advanced

#### ROTC1115, ROTC1125, ROTC1135, ROTC1145, ROTC1155, ROTC1165 ROTC1175, ROTC1185

or

#### ROTC0115, ROTC0125, ROTC0135, ROTC0145, ROTC0155, ROTC0165, ROTC0175, ROTC0185

1 or 0 Credit

##### Physical Fitness: Developing Personal and Organizational Physical Fitness Programs

This is a one-hour physical fitness session focused on building the physical and mental strength and endurance of each student. While it uses the Army Physical Fitness Standard to develop fitness goals, the program concentrates on developing, sustaining and continually im-

# Reserve Officers' Training Corps (ROTC)

proving each student's cardiovascular, upper-body and abdominal strength. The program also provides opportunities for students to lead and manage their own and their assigned organizations' fitness programs toward fitness excellence. All students accepted as cadets in the ROTC program are required to enroll in this course. Prerequisite: Medical evaluation and clearance.

## **ROTC3301 or ROTC0301**

**3 or 0 Credits**

### **Adaptive Tactical Leadership**

This course challenges students to study, practice and evaluate adaptive leadership skills as they are presented with complex scenarios related to the contemporary operating environment and across the full spectrum of military, corporate and civic operations. Instructors and fellow students give students systematic and specific feedback on their leadership attributes and actions as they are applied in a variety of situations. Self-evaluations also allow students to develop their leadership skills and critical-thinking abilities. Corequisites: ROTC5504 or ROTC0554 Leadership Laboratory: Applied Leadership and Management and ROTC1155 or ROTC0155 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

## **ROTC3302 or ROTC0302**

**3 or 0 Credits**

### **Leadership in Changing Environments**

This course presents increasingly intense situational leadership challenges to build student awareness and skills in leading small teams. Students explore, evaluate and develop skills in decision-making, persuading and motivating team members across a full spectrum of military, corporate and civic operations. Students apply principles and techniques of effective written and oral communication. Instructors review aspects of military operations as a means of preparing students for the ROTC Leader Development and Assessment Course (LDAC). Corequisites: ROTC5505 or ROTC0555 Leadership Laboratory: Applied Leadership and Management and ROTC1165 or ROTC0165 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

## **ROTC4401 or ROTC0401**

**3 or 0 Credits**

### **Developing Adaptive Leaders**

This course strengthens student proficiency in planning, executing and assessing complex operations while functioning as a member of a staff and providing performance feedback to subordinates. Students assess risk, make ethical and moral decisions, identify responsibilities of key staff members, coordinate staff roles and use situational opportunities to lead, teach, train and develop Junior ROTC cadets. Students apply leadership and problem-solving principles to a

complex case study and simulation. Lessons on military and civil justice and personnel processes prepare students to make the transition to their initial leadership assignments. Prerequisite: ROTC3301 or ROTC0301 Adaptive Tactical Leadership. Corequisites: ROTC5506 or ROTC0556 Leadership Laboratory: Applied Leadership and Management and ROTC1175 or ROTC0175 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

## **ROTC4402 or ROTC0402**

**3 or 0 Credits**

### **Leadership in a Complex World**

This course explores the dynamics of leading in the complicated situations of current operations in the contemporary operating environment (COE) of the global village. Students examine differences in customs and courtesies, culture, military law, principles of war and rules of engagement in the face of international terrorism. They also explore aspects of interacting with nongovernmental organizations, engaging in civil duties and host-nation support. Instructors place significant emphasis on preparing cadets for their first unit of assignment. Case studies, scenarios and exercises prepare cadets to face the complex ethical and practical demands of leading organizations of varied sizes to succeed in a global and complex world. Prerequisite: ROTC3301 or ROTC0301 Adaptive Tactical Leadership. Corequisites: ROTC5507 or ROTC0557 Leadership Laboratory: Applied Leadership and Management and ROTC1185 or ROTC0185 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

## **ROTC5500–ROTC5507 or**

**ROTC0550–ROTC0557**

**1 or 0 Credit**

### **Leadership Laboratory: Applied Leadership and Management**

Leadership Laboratory is designed to provide students the environment and scenarios to lead organizations of varied sizes (from team to company size). It offers the opportunity to apply leadership and management principles, theories and techniques explored in the formal, classroom, military-science courses. By design, the Leadership Laboratories are progressive and sequential, where students are placed in increasingly complex scenarios. This is a two-hour session. All students accepted as cadets in the ROTC program are required to enroll in this course.

## **Nursing**

### **A Nursing Experience Unlike Any Other**

With real-world experience they may not find in nursing school alone, nursing stu-

dents who are also Army ROTC cadets benefit from extensive one-on-one mentoring and training. Students will find out exactly what it takes to become a leader in the medical field.

If students are considering an undergraduate nursing degree, enrolling in Army ROTC can enhance their leadership skills and critical-thinking abilities while providing financial support to help make their professional goals a reality. Being a nurse in the Army provides them with opportunities not found in the civilian world. As Army nurses and officers, they will have the respect of their peers and coworkers as well as opportunities to train and serve in a variety of specialties.

Army ROTC's Nurse Summer Training Program will give students the opportunity to truly fulfill the promises of their training after graduation. Coordinating and communicating patient care, students will be in a clear position to succeed.

## **Army ROTC and Undergraduate Nursing**

Nursing students who are also Army ROTC cadets can benefit from unique hands-on nursing opportunities while receiving financial assistance for college. They will gain valuable leadership experience and management training that can benefit them in either a military or private-sector nursing career.

## **Scholarships**

The Army ROTC program offers two-, three- or four-year scholarships for undergraduate nursing students. Interested students should contact their high school academic adviser or campus military science department for more information.

## **Nurse Summer Training Program (NSTP)**

Nursing students who are also Army ROTC cadets have an opportunity for a unique summer nursing experience. The paid, three-week Nurse Summer Training Program assigns cadets to Army hospitals throughout the U.S. and Germany. The program introduces them to the Army Medical Department (AMEDD) and to the roles and responsibilities of an Army Nurse Corps Officer. Under the supervision of an experienced Army Nurse Corps Officer, students will obtain hands-on experience. Their one-on-one clinical experience will allow them to hone their clinical skills,

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develop their problem-solving techniques and become comfortable with developing their professional skills as a member of the U.S. Army Health Care Team.

## For Information

Contact Seton Hall College of Nursing at [www.shu.edu/academics/nursing](http://www.shu.edu/academics/nursing).

## Course Description

NUCL4210

3 Credits

### Nurse Summer Training Program Clinical

The Nurse Summer Training Program (NSTP) Clinical Elective provides Army ROTC nurse cadets with clinical experience in a hospital setting while introducing them to the duties, roles, responsibilities and expectations of an Army Nurse Corps Officer. The nurse cadet will exercise leadership skills in a hospital environment by planning, organizing, decision making, implementing and being accountable to the outcome of nursing care. Prerequisites: ROTC basic course, advanced camp and completion of all junior-level nursing courses.

## Air Force Program

The purpose of Air Force ROTC is to prepare students for active duty in the United States Air Force. This opportunity is available through an agreement between Air Force ROTC, New Jersey Institute of Technology (NJIT), Newark, N.J., and Fairleigh Dickinson University. The program is open to students who desire to earn appointments as commissioned officers in the Air Force.

The number of ROTC credits that may be counted toward a degree varies by school and degree program. As many as 14 ROTC credits are accepted by some colleges and as few as 3 by others. Those enrolled for the courses receive credit at their individual campuses.

All aerospace studies classes are held at New Jersey Institute of Technology (NJIT). The Air Force ROTC Office is located in Room 210, Faculty Memorial Hall, NJIT. For more information, contact the Air Force ROTC Office at (201) 596-3626 or by email at [afrotc490@njit.edu](mailto:afrotc490@njit.edu).

## Program

The Air Force ROTC program consists of four courses in aerospace studies, which are taught on the NJIT campus.

The General Military Course (GMC) is the first half of the program and is generally taken during a student's freshman and sophomore years. This program allows them to "try out" Air Force ROTC for up to two years **without incurring any obligation** (unless on an Air Force scholarship). As students attend a one-credit hour class each semester, they will learn more about the Air Force and the historical development of airpower. The second half, called the Professional Officer Course (POC), is highly competitive. These junior and senior level three-credit courses cover management and leadership skills, national defense policy and preparation for active duty. All classes are taught at NJIT in Newark, N.J.

## The Courses

The Air Force Today (AS100, 1 credit) is a survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets and complements this course by providing cadets with followership experiences.

The Air Force Way (AS200, 1 credit) is designed to examine general aspects of air and space power through a historical perspective. The course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies) and missions (functions) to demonstrate the evolution of what has become today's U.S. Air Force air and space power. The course also examines several fundamental truths associated with war in the third dimension (e.g., Principles of War and Tenets of Air and Space Power). This course provides students with a level of understanding for the general element and employment of air and space power from institutional, doctrinal and historical perspectives. In addition, students will discuss the importance of the Air Force Core Values using operational examples and historical Air Force leaders and will develop their communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets and complements this course by providing cadets with followership experiences.

Air Force Leadership and Management (AS300, 3 credits) is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations to demonstrate and exercise practical application of the concepts being studied. A mandatory Leadership Laboratory provides advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

Preparation for Active Duty (AS400, 3 credits) examines the national security process, regional studies, advanced leadership ethics and Air Force doctrine. Special topics of interest include: the military as a profession, officership, military justice, civilian control of the military, preparation for active duty and current issues affecting military professionalism. Continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory provides advanced leadership experiences, giving students the opportunity to apply leadership and management principles.

## Laboratories

All Air Force ROTC classes are accompanied by a Leadership Laboratory, which provides knowledge and practical command and staff leadership experiences. The laboratory is largely cadet planned, directed and centered. Except for special exceptions, all students enrolled in aerospace studies courses must participate in the Leadership Laboratory.

GMC Leadership Laboratories include a study of Air Force customs, courtesies, drills, ceremonies and giving military commands; the instruction, correction and evaluation of the preceding skills; the environment of an Air Force officer; and opportunities available to commissioned officers.

POC Leadership Laboratories consist of activities classified as advanced leadership experiences. They involve planning, organizing, staffing, coordinating, directing and controlling the military activities of cadet corps; preparation and presentation of briefings and other oral and written communications; and providing interviews, guidance and information to increase the understanding, motivation and performance of other cadets.



## Preprofessional Degree Options

An exciting range of curricula at FDU allows highly qualified high school students to earn their bachelor's and professional doctoral degrees in one year less than in traditional programs. Under these programs, students are guaranteed admission into various professional schools, providing they maintain appropriate academic standards. Students then can earn a medical degree at Ross University School of Medicine or at Universidad Autónoma de Guadalajara; a dental degree at the Rutgers School of Dental Medicine or Lake Erie College of Osteopathic Medicine's School of Dental Medicine; a chiropractic degree at most chiropractic colleges that are Council of Chiropractic Education (CCE) accredited; a doctor of veterinary medicine degree at Ross University; a doctor of podiatric medicine at New York College of Podiatric Medicine; a doctor of physical therapy degree at the Rutgers School of Health Professions; a Pharm.D. degree at FDU School of Pharmacy and Health Sciences; a doctor of osteopathic medicine degree at Lake Erie College of Osteopathic Medicine; an M.S. in applied clinical nutrition (Metropolitan Campus) at New York Chiropractic College, School of Health Sciences and Education; or an M.S. in acupuncture and oriental medicine (Metropolitan Campus) at Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College. See "Combined Degree Programs," pages 206–271.

Application for the degree must be made through the Office of Enrollment Services at least one year before the expected date of completion of the first year in the professional school.

For information about preprofessional studies in the sciences (medical, dental, veterinary, chiropractic, etc.) on the Metropolitan Campus, contact Professor Mihaela Leonida in the School of Natural Sciences, University College: Arts • Sciences • Professional Studies. For information about nonscience-related preprofessional studies or graduates seeking a professional career on the Metropolitan Campus see department chairs and directors. For information about preprofessional studies on the Florham Campus, contact Professor Bruce Peabody in the social sciences and history department and Professor James Salierno, biological and allied health sciences department, Maxwell Becton College of

Arts and Sciences (premedical-related fields).

### Medical Technology

Students who complete the six-semester academic curriculum in medical technology and then continue in the clinical curriculum in a school of medical technology approved by the National Academy Agency for Clinical Laboratory Science (NAACLS) will receive a Bachelor of Science degree upon completion of the clinical program.

### Prelaw

Students who are accepted to law school after completing six semesters of undergraduate work at Fairleigh Dickinson University may apply for the Bachelor of Arts or Bachelor of Science degree from Fairleigh Dickinson University under the following conditions:

1. Completion of 100 credits in a liberal arts curriculum or business administration curriculum (with accounting majors having to satisfy requirements for state certification) to include all of the required courses for the first four semesters; 18 credits of the basic curriculum of the fifth through eighth semesters; 12 credits of the major and 2 credits of electives taken during the fifth and sixth semesters. At least 64 credits are to be taken at the University immediately preceding the completion of 100 credits.

2. Successful completion of the first year and admission to the second year of an accredited law school.

### Premedical and Predental Sciences

Students who plan to enter and are accepted to a school of medicine, dentistry, osteopathy, podiatry, chiropractic, physical therapy or veterinary medicine after completing six semesters of undergraduate work at Fairleigh Dickinson University may apply for a Bachelor of Science degree from Fairleigh Dickinson University under the following conditions:

1. Completion of 99 credits in a biology curriculum. At least 77 of these credits must be taken at Fairleigh Dickinson University immediately preceding the completion of these 99 credits. All of the required courses for the first six semesters of the biology or science curriculum, described in this bulletin, must be included in the 99 credits.

2. Successful completion of the first year and admission to the second year of an accredited professional school.

### Prepharmacy Program

Students in the prepharmacy program who plan to enter and are accepted to a school of pharmacy need to take the required courses within the chemistry or biochemistry curriculum. Fairleigh Dickinson University offers the prerequisite courses for admission to pharmacy school. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

Students who plan to receive a joint B.S. in chemistry or biochemistry or biology/Pharm.D. degree need to take the required courses within the chemistry or biochemistry or biology curriculum. Fairleigh Dickinson University offers the prerequisite courses for admission to a pharmacy school. FDU students who complete three or four years in the chemistry/biochemistry/biology programs must apply for admission to and meet the entrance requirements of the pharmacy school of their choice or of FDU's School of Pharmacy and Health Sciences. After completing FDU's requirements for the undergraduate prepharmacy program the students may apply for a bachelor of science degree from FDU under the following conditions:

1. Completion of 100 or 104 credits in a chemistry or biochemistry curriculum (96 credits in the biology curriculum [Florham Campus]), respectively. At least 77 of these credits must be taken at FDU immediately preceding the completion of those 100 or 104 credits. Additionally, these students have to take courses in public speaking, microbiology and anatomy (most schools of pharmacy require one of each).

2. Successful completion of the first year and admission to the second year of the accredited school of pharmacy.

At the Metropolitan Campus, Teaneck, New Jersey, students wishing to enter the prepharmacy program must apply to the prepharmacy adviser in addition to normal FDU admissions procedures. A limited number of students will be accepted to the prepharmacy program each year.

At the Florham Campus, Madison, New Jersey, Maxwell Becton College of Arts and Sciences students interested in the prepharmacy program should contact the chair of the chemistry and pharmaceutical science department. Details on the curricula are contained within this bulletin's sections on the Maxwell Becton College of Arts and Sciences.

## Other Programs

Adult Educational Opportunities • Pre-University Program • Independent Studies • Veterans Student Services  
Cooperative Education/Internship Program • Internships, Clinicals and Fieldwork Studies • Entrepreneurship

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## Other Programs

### Adult Educational Opportunities

More than half of all students attending FDU are over the age of 21. To respond to the special needs of the adult learner, the University has developed a diverse range of academic programs, support services and convenient class hours.

Adult undergraduates can pursue their degree work on a full- or part-time basis, choosing from day, evening, distance-learning and weekend classes.

The University provides career-planning and advisement services, as well as awarding academic credit to qualifying students for life and work experience through portfolio assessment. Military student services for veterans are also available. FDU has been designated as a Military-friendly School. Many adult students achieve their academic goals through the SUCCESS Program, with individualized advisement, portfolio assessment of experiential learning, specialized courses and other innovative educational options available to them. Skills-building courses and programs also are available to help make the transition to college studies as smooth as possible. For more details see Anthony J. Petrocelli College of Continuing Studies, pages 115–125.

### Pre-University Program

Effective Spring 2013, the FDU Pre-University Program (PUP) provides opportunities for international students with intermediate English skills who meet the University's academic admission standards but require additional support in academic English to take highly specialized English-language support courses in the first semester while they study and earn academic credit towards their bachelor's degree. Although the bulk of the courses are English for Professional Success (EPS) courses, students may earn up to 11 credits toward their undergraduate degree.

### Independent Studies

Independent Studies are offered to qualified juniors and seniors interested in studying and researching a specialized area of study not usually covered in regular class work. Students may use Independent Studies courses to fulfill honors requirements in the colleges as appropriate.

### Veterans Student Services

Fairleigh Dickinson University has a long tradition of assisting veterans in their quest to realize their educational goals. The University provides academic and benefits counseling through the Office of Veterans Student Services, including the Post-9/11 GI Bill and the Yellow Ribbon Program. The University has many degree options for veterans on the Metropolitan Campus and the Florham Campus, as well as in online and off-campus locations, and prides itself as a military-friendly institution of higher education.

For information, contact (201) 692-7085.

### Cooperative Education/Internship Program

The Cooperative Education/Internship Program is the integration of academic study with preprofessional work experience. It is a developmental process designed to combine progressive learning on the job in a supervised environment while incorporating both an academic and career-development component.

The University's Cooperative Education/Internship Program allows qualified students (48 plus credits with a minimum grade point ratio of 2.50) to gain valuable job-related experience before they graduate. Students work in positions directly

related to their majors and gain exposure to career possibilities as well as a specific work environment. This preprofessional experience helps students to gain a competitive edge in the job market while they are still undergraduates. Students can earn academic credit toward their degree if they meet the criteria of the program. Cooperative education/internships can be either paid or unpaid.

For more information, contact career development on each campus — at the Florham Campus: Fairleigh Dickinson University, 285 Madison Avenue, Madison, New Jersey 07940, (973) 443-8945, or at the Metropolitan Campus: Fairleigh Dickinson University, 1000 River Road, Teaneck, New Jersey 07666, (201) 692-2195.

### Internships, Clinicals and Fieldwork Studies

The University believes that well-prepared graduates should have a thorough understanding of their field, and part of this can come with experiences in the working world. Therefore, a wide variety of internships, clinicals and fieldwork is available.

The supplement classroom lectures and study with invaluable "hands-on" experience. Consult your academic adviser for available programs. Cooperative study program (see "Cooperative Education," this page) allow students to complement classroom learning with paid professional experience.

A special plus is the location of the University — close to the major centers of business, communication, culture, science, engineering and health care in New York City and New Jersey.

### Entrepreneurship

Increasing global competition, downsizing of American corporations and the growing importance of small and midsized firms in the marketplace have sparked a broad interest in the creative process and in innovative behavior in the workplace. The

## Other Programs

Educational Opportunity Fund (EOF) • Distance Learning • Freshman Intensive Studies (FIS)  
Enhanced Freshman Experience (EFE) • Regional Center for Learning Disabilities

Rothman Institute of Innovation and Entrepreneurship at the Silberman College of Business helps students better prepare for this changing workplace. The department of management and entrepreneurship offers courses that are wide-ranging and pragmatic, focusing on critical issues associated with the entrepreneurial spirit and innovative behaviors. The curriculum is designed to enable students to identify and pursue opportunities for independent businesses, within major corporations or even for nonprofit organizations. The Rothman Institute is also distinctive in its focus on both family-owned businesses and venture creation and assists students toward their career goals. For more information on the programs offered by the Rothman Institute, contact the institute office at (973) 443-8842/8847.

### Educational Opportunity Fund (EOF)

The Educational Opportunity Fund (EOF) program is a University- and state-sponsored program governed by the policies established by the Office of the Secretary of Higher Education and Fairleigh Dickinson University. The fund was created by law in 1969 to ensure meaningful access to higher education for those who come from backgrounds of economic and educational disadvantage. The fund assists low-income New Jersey residents who are capable and motivated but lack adequate preparation for college study. To ensure the opportunity to attend college, the fund provides supplemental financial aid to help cover college costs (such as tuition, books, fees, room and board) that are not covered by the state's Tuition Aid Grant program.

The EOF program is located on FDU's two New Jersey campuses. Each campus has an EOF office with an administrator and support staff. Services that are provided include financial aid, counseling and tutorial services. Students have access to academic, career, personal and financial-aid counseling in both individual and group settings. Tutorial assistance is provided to students to reinforce and enhance their course work. In order to be responsive to students' varied learning styles and academic-support needs, services are continually monitored and refined to ensure personalized attention.

### Distance Learning

The University views the internet as a fundamental learning, communication, research and collaboration tool with which every graduating student should have a high level of facility for a lifetime of job and educational success and in furtherance of the University's global education mission, the online format provides a means for integration of global information resources and the participation of faculty members from around the world (our Global Virtual Faculty™) as teaching partners with our local, on-site faculty.

To take any online course, students must have an active FDU NetID (formerly Webmail) account prior to the beginning of the semester. Without a NetID (formerly Webmail) account, participation in these courses is impossible. NetID (formerly Webmail) accounts can be obtained online by going to <http://webmail.fdu.edu/> and following the step-by-step instructions.

To find out more information about online courses, students should contact their college dean or department chair/director. Questions regarding the online delivery should be directed to the Office of Educational Technology at [oet@fdu.edu](mailto:oet@fdu.edu). In addition, general information about online programs can be found at <http://globaleducation.edu>.

### Freshman Intensive Studies (FIS)

Offered through the Maxwell Becton College of Arts and Sciences at the Florham Campus, Freshman Intensive Studies (FIS) is a one-year learning-support and mentoring program that helps freshmen effectively transition to college. FIS is for students who have the ability and drive to succeed, but need to enhance their skills to meet their full potential. The program offers a highly structured curriculum as well as extra advising services during the students' first year at FDU. The FIS director, writing and mathematics learning specialists, faculty and staff work together with students to help them strengthen themselves academically and eliminate as many obstacles to their academic success

as possible. All FIS students are entitled to a first-year grant to assist them in their freshman year. An annually renewable FIS grant is awarded to all students who successfully complete the FIS program year and maintain satisfactory academic progress. For more information, visit the FDU website.

### Enhanced Freshman Experience (EFE)

Enhanced Freshman Experience (EFE) offers a freshman-year support program to selected students on the Metropolitan Campus. Providing a structured program of study, personal guidance and extra academic support services, EFE is designed to provide the way to success in college. Periodic academic reviews will place students on probation if their performance is below acceptable standards. A year-end review will subject students to dismissal if program requirements are not fulfilled.

For further information contact S. Craig Mourton, deputy campus executive at the Metropolitan Campus, Teaneck, New Jersey, (201) 692-2477 or email at [efe@fdu.edu](mailto:efe@fdu.edu).

### Regional Center for Learning Disabilities

FDU offers students with language-based learning disabilities who are admitted to the Regional Center for Learning Disabilities a comprehensive and structured program of support. The program is available at both New Jersey campuses.

Regional Center students are integrated fully into University degree programs of study. Support begins during orientation with academic advisement and priority registration. During the academic year, services offered include individual and small group tutorials as well as individual and career counseling with our professional staff. A two-course sequence in the freshman year focuses on skills in such areas as time management, note-taking and test preparation and explores such topics as stress reduction and self-advocacy. Computer and technological support also is available. Individual accommodations are

# Other Programs

## COMPASS (COMmunity Promoting Academic and Social Success) Program

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determined through entrance testing and may include extended time for exams and textbooks on CD, among others.

Center students enter as freshmen or transfer students after acceptance by general admissions and the Regional Center. Criteria for eligibility for the program include documentation of a language-based learning disability (SLD), a mainstream college preparatory high school program and strong faculty recommendations regarding motivation. Because enrollment is limited, interested students are encouraged to apply early. A special application and reports of current diagnostic testing are required for the center application process in addition to the University application. Applications are reviewed once students are accepted to Fairleigh Dickinson University. Students interested in the Regional Center should contact the Regional Center for Learning Disabilities, Fairleigh Dickinson University, 1000 River Road, T-RH5-02, Teaneck, New Jersey 07666, (201) 692-2087.

Students with learning disabilities who are not part of the Regional Center at the Metropolitan Campus, Teaneck, New Jersey, may apply for accommodations through the Special Needs Committee of the University, which may be contacted by written request to the Campus Executive's Office. Accommodations will be provided with the committee's approval of the student's written request accompanied by appropriate documentation. At the Florham Campus, Madison, New Jersey, requests for accommodations will be reviewed through the Office of the Dean of Students. Support services are available to students through both the Counseling Center and the Academic Resource Center. The Regional Center is available to serve in an advisory capacity with both the Counseling Center and the Academic Resource Center to help in planning the best program for you at FDU.

## **COMPASS (COMmunity Promoting Academic and Social Success) Program**

The COMPASS (COMmunity Promoting Academic and Social Success) program is an individually tailored, comprehensive, academic and social support program for a very limited number of FDU students with high-functioning Autism Spectrum Disorder or Asperger's Syndrome. The program is offered separately on each of FDU's two New Jersey campuses. The goals of this two-year program are: 1) to help each student recognize and make use of existing academic and social strengths, 2) to aid in the development of new abilities and 3) to promote progress toward a higher level of independent functioning.

As a participant in the COMPASS program, students will begin the FDU experience during the summer when all incoming freshmen participate in a one-time overnight freshman orientation program designed to help them meet their new classmates and become acquainted with the University campus and the services available. Program staff will work closely with the COMPASS students during this orientation, making certain that each student has a positive experience. While fall and spring classes are in session, COMPASS students receive weekly services including two hours of individualized, hands-on academic support, one hour of individual counseling and one group therapy session.

The application and interview process occurs during the spring semester prior to the student's freshman year at FDU. The student who can benefit the most from the COMPASS program is the one for whom a successful four- to five-year college experience is within reach. The ideal candidate for the COMPASS program has the intellectual, academic and organizational capabilities to succeed at college as a full-time matriculated student, the ability to live in a semi-independent setting and the readiness to face the challenge of exploring the social aspects of the residential college experi-

ence. Application instructions can be found at [www.fdu.edu/compass](http://www.fdu.edu/compass).

Students with an autism spectrum diagnosis are welcome to participate in the Peer Mentorship Program, regardless if they are a member of the COMPASS program. Each peer mentor is an upperclassman at FDU who has volunteered to serve as a friend and resource to a student with autism to help them settle in and become comfortably acquainted with University life. Monthly events for all students and their peer mentors will allow for additional social opportunities.

For more information on the COMPASS program at the Metropolitan Campus, please visit [www.fdu.edu/compass](http://www.fdu.edu/compass), call (201) 692-2645 ext. 413 or email at [compassmetro@fdu.edu](mailto:compassmetro@fdu.edu). For information on the COMPASS program at the Florham Campus, please visit [www.fdu.edu/compass](http://www.fdu.edu/compass) or call (973) 443-8550.

# Course Descriptions

## Course Descriptions

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## Course Numbering System

0000—Developmental Level: remedial or developmental courses intended to prepare students for entry into curriculum or to remove a deficiency, no degree credit.

1000—Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula or intended for freshmen or lower-division students.

2000—Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.

3000—Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.

4000—Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.

5000–9000—Graduate Level: a graduate course.

# University Core

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## University Core

### University Core Directors

*Fairleigh Dickinson University requires all students to complete a common University Core curriculum. The four courses making up the University Core program serve to fulfill the promise of the University's global learning mission: to prepare students for responsible citizenship in the global community and for professional success in the global economy. In most cases, students will complete the University core sequence during their first and second years at FDU, providing a foundation for more advanced studies.*

#### UNIV1001

1 Credit

##### **Transitioning to University Life**

The first course in the University Core program provides support for the transition to university life. Students are introduced to the global mission of the University as well as to the competencies of information and technological literacy. Students participate in formal and informal learning experiences that facilitate their personal and academic growth, enabling them to become more thoughtful and engaged citizens of the world. Respect for individual and cultural differences is fostered throughout the course, as is the generation of positive attitudes towards lifelong learning.

#### UNIV1002

1 Credit

##### **Preparing for Professional Life**

The second course in the University Core program helps promote the transition from classroom learning to experiential learning as well as the transition from academic life to professional life. Students are introduced to methods of self-awareness and engaged learning, and are encouraged to develop an academic plan, with formal and informal components, that supports their ultimate career goals. Respect for individual and cultural differences is fostered throughout the course, as is the importance of an international perspective for professional success. Prerequisite: UNIV1001 Transitioning to University Life.

#### UNIV2001

3 Credits

##### **Cross-cultural Perspectives**

In the third course in the University Core program, students learn to describe and analyze cultural phenomena in their own lives, to grapple with cultural differences and to understand cultural conflicts. Through a study of samples across a variety of cultures, students examine the fluidity and multiplicity of cultural identities and borders. Ways in which cultures change, how cultures shape and are shaped by individuals, how misunderstandings and conflicts arise within and between cultures and how those differences evolve are central to the course. Critical-thinking skills are developed and brought to bear on these topics. Prerequisites: UNIV1002 Preparing for Professional Life and ENGW1101 College Writing Workshop or ENGL1105 English Masters or ENWR1101 Academic Writing.

#### UNIV2002

3 Credits

##### **Global Issues**

In the fourth course in the University Core program, students develop essential aspects of critical thinking and apply those skills in evaluating international systems, environmental issues and human-rights questions. Not only will this course demonstrate the global dimensions of crucial contemporary issues, it will also develop the relational thinking that students will be expected to exercise in other academic contexts and throughout the rest of their personal and professional lives. In other words, this course is as much about how to study and think about global problems and relationships as it is a course about specific global issues. Prerequisites: UNIV2001 Cross-cultural Perspectives and ENGW1101 College Writing Workshop or ENGL1105 English Masters or ENWR1101 Academic Writing.

# African-American Studies

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Maxwell Becton College of Arts and Sciences

Florham Campus, Madison, New Jersey

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate department chair.

### African-American Studies

*Department of Social Sciences and History*

**AFAM2001**

**3 Credits**

#### **Introduction to African-American Studies**

An overview of African-American life in the United States, past and present. Interdisciplinary exploration of aspects of Black America including such topics as: African-American identity, defining experiences in the United States, African-American contribution to American culture and society and connections to Africa and other African diaspora communities.

**AFAM2010**

**3 Credits**

#### **The Black Diaspora and Transnationality**

Examination of events, movements, theories and texts that have shaped the development of the African diaspora. Topics include slavery, abolitionism; Pan-Africanism; the culture/politics nexus; hip-hop, AIDS; linkages among gender, sexuality and diasporic sensibilities.

**AFAM2100**

**3 Credits**

#### **The New Jim Crow**

This course will explore modern state of affairs for its sociopolitical interrelations with race, gender, civil rights, poverty, policing and the prison industrial complex, drawing from Michelle Alexander's influential book, *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*, as well as scholarship from Derek Bell, Kimberlé Williams Crenshaw, President Barack Obama, Angela Davis and Wally Lamb, among others. Students will learn about and critically analyze specific cases of wrongful imprisonment and the exponential growth of inmates, largely minority men and women.

**AFAM2500**

**3 Credits**

#### **Black Male Experiences**

This course will explore the black male experience in America from both sociological and interdisciplinary perspectives. In order for students to develop a comprehensive understanding of this experience, theories, strategies and perspectives regarding racial conflict, class, gender, religion and sexuality will be analyzed. The various roles inhabited by African-American men will be evaluated and students will discover the challenges and contributions of black men during significant periods in American history and the new millennium. The speeches, literature and artistic works of Dr. Martin Luther King, Jr., Malcolm X, W.E.B. DuBois, Marcus Garvey, James Baldwin, August Wilson, President Barack Obama, Elijah Anderson and contemporary hip-hop lyrics will be reviewed. Lectures from invited guests, a trip to Harlem, N.Y., and the organization of a collective event (that is open to the public) are all required components of the course curriculum.

**AFAM2501**

**3 Credits**

#### **Black Female Experiences**

This course will explore the black female experience in America from a sociological perspective. In order for students to develop a comprehensive understanding of this experience, theories regarding race, gender, sexuality, love relationships and the various roles inhabited by African-American women will be evaluated. Students will discover the challenges and contributions of African-American women during significant periods of American history including slavery and the Civil Rights Movement. The research, literature and artistic works of Patricia Hill-Collins, Tricia Rose, Sheri Parks, Elijah Anderson, Jacqueline Grant, Alice Walker, Angela Davis, Maya Angelou and others will be critically examined.

**AFAM2510**

**3 Credits**

#### **Women, Feminism and Beyoncé**

By studying first-, second- and third-wave feminist theories and history, the class will ask questions and draw conclusions about why, in part, women of color are often marginalized characters and/or sexual objects in canonical literature and pop culture. It will also analyze Beyoncé's most controversial album, "Lemonade," as text. Students will examine themes of pain, religion and second-class citizenship as it relates to

women of color, through a multilayered feminist perspective that is central to her album. By critically engaging the scholarship of Betty Friedan, Simone de Beauvoir, Warsan Shire, Emma Goldman, bell hooks, June Jordan, Audre Lorde, Gloria Steinem, Chimamanda Ngozie Adichie, Ta-Nehisi Coates, David Kirkland and Margaret Cho, the class will celebrate the achievements of women and possibly explore the remnants of sexist thinking that still affect the 21st-century woman.

**AFAM3356**

**3 Credits**

#### **African-Americans and New Media**

This course will examine how the internet and the use of new media have impacted the ways in which African-Americans create, communicate and protest injustice from an interdisciplinary perspective. Students will explore the historic ways in which African-Americans organized and expressed a desire to change society and compare those methods to contemporary forms of protest and empowerment. Twitter, Instagram, videos, blogs, digital photographs, music-streaming sites and other forms of digital technologies will be reviewed in detail. Students will be required to present a final project utilizing new media.

**AFAM3357**

**3 Credits**

#### **Sociology of the African-American Family**

This course will analyze, from a sociological perspective, the factors that have contributed to the evolution of the African-American family such as slavery, religion and the civil rights movement. Students will not only examine theories that attempt to explain social concerns for the African-American family, such as poverty, incarceration and single-parent households but also the rise of the African-American middle class and its family structure. The continuous impact of the media, music and literature on the African-American family experience will also be investigated. Students will be exposed to literature from W.E.B. DuBois, Frederick Douglass, Franklin Frazier, Patrick Moynihan and others.

**AFAM3358**

**3 Credits**

#### **Sociology of the Black Church**

This course will introduce students to the black church from a sociological perspective. Concepts such as socialization, the Protestant Ethic and deviance will be examined. Students will re-

# Anthropology

Maxwell Becton College of Arts and Sciences  
Florham Campus

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view literature from historical and contemporary African-American theologians such as Dr. Martin Luther King, Jr., Rev. Gardner C. Taylor, Rev. Floyd Flake and Rev. Dr. Elaine Flake. Students will evaluate the content of sermons and identify critical themes such as liberation theology and feminist theology. This course will analyze the complete relationship between the black church and politics, ethnic conflict, economics and the African-American family. Social science research methods such as participant observation will also be reviewed and implemented.

## AFAM3359

3 Credits

### **Sociology of Race, Rap and Religion**

This course will provide students with a sociological analysis of race and religion as they intersect in rap music and hip-hop culture. Classical theorists such as Marx, Weber, DuBois, Durkheim and contemporary theorists such as Tricia Rose and Michael Eric Dyson will be discussed in relation to this multifaceted and controversial subculture. Sociological theories on violence, socialization, urbanism and social stratification will also be explored.

# Anthropology

*Department of Social Sciences  
and History*

## ANTH1201

3 Credits

### **Physical Anthropology**

The study of the evolution of human beings and of the relationship between human beings and nonhuman primates. Attention is given to the evidence of the fossil record, behavioral and genetic studies of human and nonhuman primates and the existence of modern human physical variability.

## ANTH1202

3 Credits

### **Cultural Anthropology**

The study of the culture and social institutions of human societies with special emphasis on the many small-scale societies that make up the majority of the people of the world. Attention is given to marriage and family life, patterns of equality and inequality, collective violence and war, religion and the impact of globalization upon the diversity of the world's peoples.

## ANTH2201

3 Credits

### **Anthropology of Women**

The cultural and legal determinants of women's status and options in cross-cultural perspective. Students will examine the broad patterns of male/female power structures and the range of variability and associated cultural, ecological and economic factors. The course will involve the examination of various theoretical approaches.

## ANTH2202

3 Credits

### **Anthropology of Sex**

Exploration of the evolution of sex and sexual behavior, drawing on data from biology. The course looks at the relationship between sexual behavior and social structure, examines the biological basis of differences between the sexes and explores the evolution and biology of sexual orientation. The focus is on human and nonhuman primates.

## ANTH2300

3 Credits

### **Ethnographic Field Methods**

An introduction to the practical and theoretical issues surrounding ethnographic research in anthropology and the social sciences. Lecture discussions on research methods are enhanced by group and individual research projects conducted by students themselves on a key anthropological theme. Students will develop a knowledge of anthropological research methods, have the practical experience of conducting ethnographic research, acquire the ability to analyze data drawn from their own research and have the opportunity to acquire the ability to present their research in written and verbal form. Prerequisite: ANTH1202 Cultural Anthropology, SOCI1201 Introduction to Sociology or permission of instructor.

## ANTH2305

3 Credits

### **Introduction to Archaeology and Prehistory**

A basic introduction to archaeology and prehistory. Emphasis is on the historical development of human societies and cultures as evidenced by the archaeological record. Attention is given to the methods and procedures of archaeological investigation as well as to selected cases in both Old World and New World prehistories.

## ANTH2355

3 Credits

### **African Peoples and Cultures**

The study of the peoples and cultures that make up traditional and modern Africa. Emphasis is on the cultural and social organization of a variety of different peoples including hunters and gatherers, pastoralists and agriculturalists. Attention is given to the impact of colonialism and globalization upon traditional cultures and the contemporary challenges to African societies brought on by economic development and new ideas of human rights.

## ANTH2356

3 Credits

### **Peoples and Cultures of Latin America**

The study of the peoples and cultures of traditional and modern Latin America. Emphasis is on the culture and social organization of tradi-

tional society and the impact of colonialism, revolution and globalization in Latin America.

## ANTH2358

3 Credits

### **Israeli Society and Culture**

This course examines modern Israeli society with an emphasis on the relationship between ethnicity, politics and religion. The focus is on the cultural diversity of Israel's population of Jews and Arabs and on the forms of identification and self-identification of individuals and communities that developed in the context of Zionism, nationalism, modernization and globalization. The course traces these issues beginning with the Zionist settlement of Palestine in the late 19th century through current conflicts of Palestinians and the Arab-Israeli conflict more generally.

## ANTH2341

3 Credits

### **Jewish Communities of the Middle East**

This course explores ancient Jewish communities throughout the Middle East, such as Shiraz (Iran), Bataween, (Iraq), Djerba (Tunisia), Rabat (Morocco), Izmir (Turkey), the communities of Islamic Spain, as well as some of the oldest centers in Israel and many more. The course takes an interdisciplinary approach combining ethno-history and anthropology, with history of art and architecture and other fields. These communities, some of which survive to this day, have rich histories of prosperity and cultural integration as well as persecution. In addition to these histories, the current status and future prospects for Jews of the Mid-East Diaspora will be considered.

## ANTH2430

3 Credits

### **Anthropology of Law**

Cross-cultural study of law. Examination of custom and law in societies in Africa, Asia, the Middle East and the Americas; analysis of the impact of the West on traditional legal systems in the developing world; and exploration of the role of culture in shaping legal decision making.

## ANTH2431

3 Credits

### **Anthropology of Crime**

Murder, theft, corruption, genocide, sex trafficking, this course examines all from an anthropological perspective. Using cultural situations from around the globe, it investigates the complexities that generate and support crime, even while seeking to constrain and end it. (Equivalent to CMLGY2431 Anthropology of Crime.)



# Arabic Language and Culture

Maxwell Becton College of Arts and Sciences  
Florham Campus

## ANTH2440

3 Credits

### Sustainability and Anthropology

A study of the interrelationships between humans and environments using the perspectives of anthropology. The course examines cultural and biological adaptation to various physical environments in the past and present. There will be a focus on global modern strategies for cultural and environmental sustainability.

## ANTH2441

3 Credits

### Forensic Anthropology

This course introduces students to the field of forensic anthropology. Forensic anthropology uses the knowledge of human skeletal remains in modern legal, criminal and investigatory settings. Topics to be explored include basic human skeletal anatomy; the identification process including the assessment of the biological profile (sex, ancestry, age and stage); the examination of traumatic processes to bone (blunt force trauma, ballistics trauma, sharp-force trauma, burned remains and child abuse); the determination of time since death; and the work of the anthropologist in a forensic setting. Special attention is given to the role of the forensic anthropologist in human-rights works such as the war crimes trials in Bosnia and Rwanda as well as issues that arise in human and natural disasters such as the attack on the World Trade Center, the recent tsunami and Hurricane Katrina.

## ANTH3102

3 Credits

### Anthropology of Children and Childhood

This course is a cross-cultural exploration of the lives of children. It examines basic anthropological concepts about childhood and especially the issue of how much children in different cultures, societies and historical periods resemble one another. Ethnographic case material is used to explore the ways in which childhood is culturally constructed. Central to this is how to understand and interpret the everyday lives of children and the role of a children's agency in defining and giving meaning to the life of a child.

## ANTH3349

3 Credits

### War and Crime

A historical and comparative analysis of social, ethnic, religious and national conflicts with special emphasis upon understanding and analyzing the customary, moral and legal regulation of armed conflict. A case-analysis approach is used to illustrate the complexity subjecting warfare to legal regimes. (Equivalent to CMLGY3349 War and Crime.)

## ANTH3350

3 Credits

### Introduction to Folklore

An introduction to the study of folklore, including how folklore is classified and collected. Students will be asked to conduct folklore fieldwork in New Jersey as part of the New Jersey Stories Project.

## ANTH3360

3 Credits

### Medical Anthropology

An examination of how cultural and social factors influence health and well-being. The prevention and treatment of illness, the healing process and experience and distribution of illness. The role of pluralistic medical systems is also given attention.

## ANTH3403

3 Credits

### Global Poverty, Culture and Reproduction

Topics covered include the issues in developing countries that women and girls face like poverty, lack of education, lack of access to health care, HIV/AIDS, culture and patriarchy and their relationship to family planning and reproductive and maternal health. Students also learn about U.S. foreign policy and how it impacts women's health in developing countries, the role and work of the United Nations in this area and important solutions to address these issues.

## ANTH3430

1-3 Credits Each Semester

### Selected Studies in Anthropology

Directed reading in a subfield of anthropology to be determined by the professor.

## ANTH4075

1-3 Credits Each Semester

### Honors Seminar

Senior seminar. A capstone course for students in social sciences, addresses broad questions in theory and application.

## ANTH4477

1-3 Credits Each Semester

### Honors Research and Thesis

## ANTH4700

3-18 Credits

### Washington Center Internship

This course is a one-semester internship in Washington, DC, through the Washington Center Internship Program. Students may register for 3-18 credits.

## ANTH4800

1-3 Credits Each Semester

### Independent Study in Anthropology

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

## ANTH4900

3-12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## ANTH4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

# Arabic Language and Culture

*Department of Literature,  
Language, Writing and Philosophy*

## ARAB1001

3 Credits

### Beginning Arabic I

An introduction to the language with practice in reading, writing and conversation. Corequisite: ARAB1007 Arab Practicum I.

## ARAB1002

3 Credits

### Beginning Arabic II

An introduction to the language with practice in reading, writing and conversation. Prerequisite: ARAB1001 Beginning Arabic I. Corequisite: ARAB1008 Arab Practicum II.

## ARAB1007

1 Credit

### Arab Practicum I

This 1-credit course is linked to ARAB1001 Beginning Arabic I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ARAB1001 Beginning Arabic I.

## ARAB1008

1 Credit

### Arab Practicum II

This 1-credit course is linked to ARAB1002 Beginning Arabic II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ARAB1002 Beginning Arabic II.

## ARAB2506

3 Credits

### Arab Culture and Civilization

This course, taught in English, introduces key topics in Arabic history, politics, arts, literature, as well as the sciences. It will also address contemporary issues in Arabic culture.

# Art

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Art

### *School of the Arts*

#### **Art – Art History and Interpretation**

**ARTH1110**  
3 Credits

##### **Life of the Contemporary Artist**

Built around the study of various forms of art and trips to experience the arts in the region, including New York City, this course will introduce students to the contemporary arts and to the artists who create them.

**ARTH1205**  
3 Credits

##### **Art History: Prehistoric Through Medieval**

The development of visual art (painting, sculpture and architecture) from prehistoric times to the present (within its historical context). Slides and films. The ideas and philosophies of each culture are considered in order to point out the effect of thought upon art. No attempt is made to define a universal aesthetic; rather, the aim is to interpret and, consequently, enjoy art in the context of culture.

**ARTH1206**  
3 Credits

##### **Art History: Renaissance Through Today**

The development of visual art (painting, sculpture and architecture) from prehistoric times to the present (within its historical context) with slides and films. The ideas and philosophies of each culture are considered in order to point out the effect of thought upon art. No attempt is made to define a universal aesthetic; rather, the aim is to interpret and, consequently, enjoy art in the context of culture.

**ARTH1402**  
3 Credits

##### **Museums of New York**

Students will have guided tours of the most important art museums in New York. Classroom lectures and museum visits.

**ARTH1805**  
3 Credits

##### **Modern Art in the New York Museum**

This course explores modern and contemporary art in New York City museums and galleries, in both permanent collections and special exhibitions. It includes three all-day excursions to New York City, along with evening classes held on campus. While there is no required course book for the class, transportation and admissions amount to approximately \$100.00 to \$120.00.

**ARTH2011**  
3 Credits

##### **Florham Scholars in Arts and Humanities Seminar II**

This course is open to Florham Scholars or by permission of the instructor.

**ARTH2218**  
3 Credits

##### **20th-century Art**

A study of the main movements in modern and contemporary painting and sculpture: symbolism, fauvism, expressionism, cubism, futurism, dadaism and surrealism. More recent movements such as pop, op, minimal and conceptual art will be discussed.

**ARTH2220**  
3 Credits

##### **Art From 1950s–Present**

A study of the work, lives and history of artists from the 1950s to the present. The course will explore art from abstract expressionism to post-modernism and various contemporary art movements. The students will visit art galleries in New York City as part of the course.

**ARTH2265**  
3 Credits

##### **History of Photography**

A look at the social, artistic and political contexts surrounding the history of the photograph — from its inception to the present day. Lectures will highlight various photographic trends and photographers who have made major contributions to the art form.

**ARTH2550**  
3 Credits

##### **Movements in Art Since 1945**

This class will look at the development of modern art after World War II, including painting, sculptures, performances, street art, land art, photography, video art and all new media. This course will focus on works in the collections of New York City museums. During the semester, students will visit several sites including The Museum of Modern Art, S.R. Guggenheim Museum, Whitney Museum, International Center of Photography and contemporary art galleries.

**ARTH2875**  
3 Credits

##### **American Impressionists**

A study of American Impressionists, artists of the Cos Cob Colony, including Childe Hassam and J. Alden Weir, and the Pennsylvania Impressionists, such as Lathrop, Redfield, Schofield and others. Ties to French Impressionism will also be studied.

**ARTH3008**  
3 Credits

##### **Italian History and Art History**

A course about the fundamental concepts of Italian history and art history, designed specifi-

cally to take advantage of the resources of the culturally rich city of Bergamo. The course is co-taught by a historian and an art historian in English. The course takes place in Italy and is offered at no cost to FDU students as long as they register in one of the other courses offered in the study-abroad in Italy program. (Equivalent to HIST3008/ITAL3008 Italian History and Art History.)

**ARTH3009**  
3 Credits

##### **African-American Art**

This course will suggest different ways of looking at African-American art and works by black artists and explore the culture from which it emerges. Issues such as the relationship of art and politics, cultural diversity as well as questions of racial identities across the African-American and black culture and how they relate to visual representation, will be explored. The class will consider work from among such artists as Henry Ossawa Tanner to the video installations of Keith Piper, and including such artists as Jean-Michel Basquiat, Jacob Lawrence, Faith Ringgold, El Anatsui, Kehinde Wiley and J.D. Okhai Ojeikere.

**ARTH3217**  
3 Credits

##### **Late 19th-century Art**

Western European painting and sculpture, focusing on the period from 1870–1914, with emphasis on Impressionism, post-Impressionism, symbolism, the Pre-Raphaelites as well as academic art. Special attention is given to major artists such as Degas, Manet, Monet, van Gogh, Rodin, Turner, Seurat, Gauguin as well as Rossetti and others.

**ARTH3219**  
3 Credits

##### **Art in America**

The development of the arts in America. Special emphasis given to America's contribution to art of the 20th century.

**ARTH3315**  
3 Credits

##### **Spanish Art and Its Influence in America**

Study of Spanish art from its beginnings, with special attention to the 19th and 20th centuries. Focus on particular trends, movements and individuals in the art of Spain who influenced other artists in Latin America and the United States. Study of the works of art within their social, historical and theoretical contexts. Conducted in English.

**ARTH3355**  
3 Credits

##### **New Jersey Museums and Their Art**

A study of art movements as presented in New Jersey museum exhibits and lectures.

**ARTH3423****3 Credits****Women Artists**

The study of the lives and influences, art and techniques of American and European women artists during the period from Impressionism to the present day, with emphasis on issues of subject matter, historical context and gender.

**ARTH3442****3 Credits****Art Appreciation in Sport**

A study of sports activities as expressed by various artists throughout history and through the media.

**ARTH3803****3 Credits****Modern Art in the New York Museum**

This course covers the 20th century in painting and art as well as its foundation in late 19th-century France. It is taught onsite through trips to New York's most famous museums.

**ARTH3825****3 Credits****Exploring Great Museums of England**

This course introduces students to the history of British painting and photography through visits to museums, galleries and historical sites in England. Lectures and related hands-on, art-making activities will take place at FDU's Wroxtton campus in England.

**ARTH4403****3 Credits****Public Art in New York City**

This course will look at the role of public art in cities. Since the early years of this country, public art has served to visualize the people's sense of identity, mostly in the shape of the likeness of the founding fathers and the heroes of this immigrant nation. But it was also meant to shape the people's sense of character, celebrating civic virtues, honoring the victims of war and terrorism, remembering historic events and to mark historic sites. The idea of public art has now grown to include a role that includes adornment, entertainment and to inspire and strengthen a sense of community. The class will visit the sites of public art and study its crucial role in modern urban development.

**ARTH4404****3 Credits****Museums of New York: 19th-century French Art and Impressionism**

A study of French art in the New York museums through realism, Impressionism and post-Impressionism.

**ARTH4422****1-3 Credits****Internship in Art History I**

Students will work independently on special projects or topics, which require approval of supervising faculty member.

**ARTH4423****1-3 Credits****Internship in Art History II**

Students will continue to work independently on special projects or topics, which require approval of supervising faculty member.

**ARTH4900****3 Credits****Faculty/Student Research I**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**ARTH4901****3 Credits****Faculty/Student Research II**

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: ARTH4900 Faculty/Student Research I.

**Art – Studio Art****ART1030****3 Credits****Art of the Italian Travelogue**

For centuries, artists and students have travelled to Italy to study its rich architectural and artistic heritage directly. This class offers students an experience of Italian artistic and cultural history through the process of creating their own art. Students explore the world of drawing utilizing a range of techniques and materials including pencil and charcoal, chalks and pastels, pen and ink and watercolor and gouache on paper. Each student creates a sketchbook/travelogue of their time in Italy and larger independent drawings. Classes are held outside in cities, parks, museums and galleries where students work from direct observation. Day-trip excursions bring students and their instructors to places of interest beyond Bergamo, Italy. It is suggested, but not required, that students take ART1201 Drawing I before enrolling in this class.

**ART1157****3 Credits****Printmaking I**

Basic printmaking techniques and their aesthetic possibilities. Monoprints, linocuts and wood-blocks.

**ART1169****3 Credits****Watercolor Painting I**

Fundamentals of transparent watercolor painting. Stretching, wash techniques and brush manipulation.

**ART1191****3 Credits****Photography I**

The fundamentals of black-and-white photography are taught as students develop their own photographs in the darkroom.

**ART1201****3 Credits****Drawing I**

An introduction to, and an exploration of, a selected variety of drawing materials and techniques. Emphasis will be placed on the comprehension of the creative possibilities of pencils, charcoal and conte crayon. The course will explore the drawn line as the description of contour, light, darkness and space, as well as the techniques of gesture drawing, shading, texture and heightened drawing on stained paper and other drawing surfaces.

**ART1202****3 Credits****Drawing II**

Pencil, conte and ink rendering while developing concepts of composition and personal modes of expression in the given media. Emphasis on the development of a personal aesthetic by each student. Prerequisite: ART1201 Drawing I.

**ART1225****3 Credits****Painting I**

This introductory course into techniques and ideas in painting allows the student to learn to translate the three-dimensional world of the portrait or still life into painting.

**ART1231****3 Credits****2-Dimensional Design I**

Basic elements of visual language in their application to selected problems. The study is based on formal and ideological analysis of a given object and translation of the resulting material into a two-dimensional visual system of communication. The following are examples of this visual vocabulary that are studied and applied to concrete projects: dynamic and static figure-ground relationships, rhythm, scale, color theory and contrasts, rotating patterns, elementary poster design. All criticism and instruction are on an individual basis.

**ART1235****3 Credits****Sculpture I**

The student will be introduced to contemporary concepts of sculpture by way of traditional and contemporary materials. Drawing upon the students' own experience and interests as primary resources as well as historical considerations, the students will create sculptures.

**ART1250****3 Credits****Art of the Graphic Novel**

Students will learn to draw graphic-novel pages. Instruction includes all stages of fine art production — from concept sketch to finished page (including lettering). Students are encouraged to take ART1201 Drawing I before enrolling in this course, although it is not required.

# Art

Maxwell Becton College of Arts and Sciences  
Florham Campus

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## ART1260

3 Credits

### **Ceramic Character Sculpture**

The course will allow students to create sculptures in clay of their own original characters as models for animations, graphic novels or other personal projects. Students will learn ceramic-building techniques for constructing three-dimensional figures. The class will examine the important role clay models play in the development of characters. This will be explored in a range of animated films.

## ART1315

3 Credits

### **Ceramics I**

The art of clay and glazes. Involves the student in the making of sculptural forms, vessels or functional objects. Techniques used are clay, pinching, slab and coil building, throwing on the wheel and glazing.

## ART2060

3 Credits

### **Advanced Character Sculpture**

This course will teach character sculpture at an advanced level. It will include development and creation of unique characters along with their environments in three dimensions. Modeling techniques in multiple materials will be demonstrated (clay, wire, plaster and mixed media). Class geared toward portfolio development in fine arts as well as film/animation. Prerequisite: ART1260 Ceramic Character Sculpture.

## ART2061

3 Credits

### **Animal Sculpture**

The course will allow students to create 3D sculptural representations of animal forms. Basic introduction to comparative animal anatomy will be explored along with direct observation from live animals. The symbolic and expressive use of animal imagery in visual art across cultures and throughout history, including contemporary art and animation, will be looked at. The course will include varied approaches to building 3D forms in clay and mixed media (ex. plaster, wire) — from masks to small sculptures. Students will have the opportunity to make portraits of selected animals such as personal pets or inventions. Class trips will include visits to a zoo, the Metropolitan Museum of Art and an animal skeleton collection.

## ART2062

3 Credits

### **Advanced Animal Sculpture**

This course will teach animal sculpture at an advanced level. Students will research specific animals and create 3D sculptural representations of these animal forms. Comparative animal anatomy will be explored along with direct observation from live animals. The symbolic and expressive use of animal imagery in visual arts

across cultures and throughout history, including contemporary art and animation, will be considered. The course will include varied approaches to building 3D forms in clay and mixed media (ex. plaster, wire). Students will have the opportunity to make portraits of selected animals and/or create their own invented creatures. Class trips will include visits to a zoo, the Metropolitan Museum of Art and an animal skeleton collection. Prerequisite: ART2061 Animal Sculpture.

## ART2217

3 Credits

### **All the World's a Canvas: Illustrating the English Countryside and Cityscapes**

This is a unique opportunity for students to combine traveling to England to explore, illustrate and study the English countryside, cities and culture. Students will learn a variety of illustration techniques while documenting their journey and travel experiences and will assemble course work and sketches into a final journal to commemorate the experience. Although home base will be Wroxton College, students will visit a variety of places such as museums and theaters.

## ART2233

3 Credits

### **3-Dimensional Design**

A basic course that introduces the student to the ideas and language of three-dimensional design. Because of the wide range of the course, students who may be interested in sculpture; jewelry, interior, architectural design, stage or graphic design; computer animation; and 3D modeling, can benefit from this course.

## ART2236

3 Credits

### **Introduction to Color**

Basic theory of color perception and its relevance to the visual arts. Diverse color relationships and contrasts are studied with the use of color aid, and studio experiments are supplemented by theoretical investigation. Projects investigate different types of color contrasts (hue, value, saturation and temperature).

## ART2269

3 Credits

### **Watercolor Painting II**

Advanced techniques in water-soluble media. Emphasis on original procedures for painting various subjects including still life and landscape.

## ART2316

3 Credits

### **Ceramics II**

A further investigation of artistic and technical considerations explored in ART1315 Ceramics I. Prerequisite: ART1315 Ceramics I.

## ART2319

3 Credits

### **Drawing III**

Advanced exploration of both the student's environment and selected drawing media. Prerequisites: ART1201 Drawing I and ART1202 Drawing II.

## ART2320

3 Credits

### **Drawing IV**

In-depth investigation into the variety of non-traditional drawing media such as oils, pastels, inks, dyes and collages. Prerequisites: ART1201 Drawing I and ART1202 Drawing II.

## ART2326

3 Credits

### **Painting II**

A continuation of ART1225 Painting I. Special emphasis on the student's continued aesthetic, creative and technical development in painting.

## ART2336

3 Credits

### **Sculpture II**

A continuation of ART1235 Sculpture I. Emphasis on an individual approach and further exploration into the technical and creative aspects of sculpture. Prerequisite: ART1235 Sculpture I.

## ART2435

3 Credits

### **Landscape Painting**

Explores the creative possibilities and techniques in painting landscapes. Focus is on live observation. Media will include oil and acrylic.

## ART3237

0 Credits

### **Junior Portfolio Preparation I**

This course is designed to instruct the student in correct portfolio content and presentation for obtaining positions or entry into a Master of Fine Arts program.

## ART3302

3 Credits

### **Life Drawing**

A course designed to develop the capacity of visual observation of the human figure and a second base for visual development in many areas. Expression of approach: gesture drawing, movement expressed by few lines, expressive ways of translating the figure.

## ART3307

3 Credits

### **Ceramics III**

An advanced-level class in ceramics. Students will further develop concepts and techniques in clay construction and glazing with a more independent approach, personal projects and research. Prerequisites: ART1315 Ceramics I and ART2316 Ceramics II.

**ART3308****3 Credits****Ceramics IV**

This course will allow students in-depth investigation of concepts along with advanced-level process using the ceramic media. Personal exploration and research will be emphasized. Contemporary art works will be a focus in class trips to New York galleries and museums. Prerequisites: ART1315 Ceramics I, ART2316 Ceramics II and ART3307 Ceramics III.

**ART3312****3 Credits****Printmaking**

Introduces the student to multiple mechanical and industrial characteristics of printmaking. The student explores the possibilities of block-printing (woodcuts), intaglio (etching) and silkscreen as a means of reproducing images. Experiments with texture, color, line and mass are encouraged.

**ART3313****3 Credits****Ceramics V**

An advanced-level class allowing in-depth development of major personal projects and research. Prerequisites: ART1315 Ceramics I, ART2316 Ceramics II, ART3307 Ceramics III and ART3308 Ceramics IV.

**ART3314****3 Credits****Ceramics VI**

An advanced course in the ceramics sequence. Further study based on earlier courses in ceramics, which focuses on the art of clay and glazes. Involves the student in the making of sculptural forms, vessels or functional objects. Techniques used are clay, pinching, slab and coil building, throwing on the wheel and glazing. Prerequisite: ART3313 Ceramics V or permission of instructor.

**ART3327, ART3328****6 Credits (3 Credits Each Semester)****Painting III, IV**

An in-depth investigation into materials, techniques and content of painting. An introduction of new media and contemporary ideas. The student is encouraged to develop personal modes of expression, that is, to develop the ability to express the inner imperatives, personality and individuality through intuitive, as well as rational "plastic" approach to outside reality. All criticism and instruction are on an individual basis.

**ART3329****3 Credits****Painting V**

Advanced students continue their in-depth investigation into materials, techniques and content of painting. An introduction of new media

and contemporary ideas. The student is encouraged to develop personal modes of expression and the ability to express inner imperatives, personality and individuality through intuitive, as well as national "plastic" approaches to outside reality. All criticism and instruction are on an individual basis. Prerequisite: ART3328 Painting IV.

**ART3337****3 Credits****Life Sculpture**

The course offers a sculptural exploration of human form and anatomical study. Students work from live models in clay and other materials.

**ART3339****3 Credits****Sculpture III**

An advanced course allowing further studio work. The student's own subject matter is developed and related to recent sculptural ideas and materials. Knowledge and skills of contemporary sculpture are expanded and applied. Prerequisites: ART1235 Sculpture I and ART2336 Sculpture II.

**ART3340****3 Credits****Sculpture IV**

The course concentrates on the student's execution of a major project. Attention is given to technique, material, scale and its environment. Prerequisites: ART1235 Sculpture I, ART2336 Sculpture II and ART3339 Sculpture III.

**ART3350****3 Credits****Illustration**

Employing diverse studio art techniques, students will be exposed to a variety of illustration practices. They will learn to express visual ideas and narratives found in book, magazine, editorial and music promotion.

**ART3352****3 Credits****General Drawing III**

Advanced exploration of both the students' environment and selected drawing media.

**ART4293****3 Credits****Introduction to Art Therapy**

This course will study the history and development of art therapy, the relationship between psychotherapy and art, the use of art as a diagnostic tool and art-therapy methodologies. This course will help students achieve a greater awareness of their own creative strengths and how to utilize them in a therapeutic setting. (Equivalent to PSYC4293 Introduction to Art Therapy.)

**ART4371****0 Credits****Senior Portfolio Preparation**

A review course in developing student artwork for presentation. The portfolio's application is for graduate school or for entering the professional art field.

**ART4422****1-3 Credits****Internship in Art I**

Intern at a company or organization for up to 20 hours per week. Students in computer graphic design and in studio arts are eligible for this internship.

**ART4423****1-3 Credits****Internship in Art II**

Intern at a company or organization for up to 20 hours per week. This internship may be a continuation of ART4422 Internship in Art I or a new experience with a different company.

**ART4430****1-3 Credits Each Semester****Selected Studies in Art or Art History**

Studies in an area of art or art history.

**ART4431****3 Credits****Ceramic Character Sculpture III**

The course will allow students to create sculptures in clay of their own original characters as models for animations, graphic novels or other personal projects. For advanced level. Prerequisites: ART1260 Ceramic Character Sculpture and ART2060 Advanced Character Sculpture.

**ART4800****1-3 Credits Each Semester****Independent Study in Art or Art History**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**ART4900****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**ART4901****3 Credits****Faculty/Student Research**

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: ART4900 Faculty/Student Research.

# Art

Maxwell Becton College of Arts and Sciences  
Florham Campus

## Graphic Design

**CGD1050**

**3 Credits**

### Creative Concept Drawing

This course emphasizes developing ideas in sketch form to convey visual representations of a concept before going to the computer to create the digital comps. The course builds drawing skills for graphic arts students while concentrating on conceptual thinking. Interpretation of ideas and how they are realized is covered in this course along with focusing on the student's individual creativity.

**CGD1212**

**3 Credits**

### Introduction to Graphic Design

This course is foundational for understanding the principles and theory of graphic design and how to put this knowledge into practice. Students will learn how to communicate emotion through design principles and organization, through an exploration of visual literacy and project-based learning. The course will cover an introduction to design elements, color, layout, typography, historical perspectives, visual and conceptual problem solving, career paths and planning for future jobs.

**CGD1313**

**3 Credits**

### Creative Imagery with Photoshop

This course is an introductory exploration of computer graphics as a technology and a creative medium. Through the use of industry-standard software, Adobe Photoshop®, students learn the fundamentals of working with Raster editing techniques. The focus is on manipulating images and learning about the production workflow as it pertains to digital imagery.

*Fee*

**CGD1314**

**3 Credits**

### Illustrator Graphics and Design

This course is an exploration of computer-generated vector graphics as a creative medium. Through the use of industry-standard software, Adobe Illustrator®, students study the fundamentals of graphic design and learn to conceptualize and present ideas in visual form. Topics in this course include production workflow and output standards of vector graphics as they apply to print and web delivery.

*Fee*

**CGD1552**

**3 Credits**

### The Digital Children's Book

The course focuses on the theory, history and artistic production of illustrated children's books. Topics include visual storytelling, character development and guidance for assembling an effective portfolio presentation. This course explores a variety of digital-illustration and com-

puter-generated art techniques as well as topics on drawing, painting composition and picture planning. Students learn the skills necessary in the production of digital children's book illustrations through an artfully creative and practical course, which includes scanning hand-drawn illustrations, digital-image creation and manipulation. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

**CGD2170**

**3 Credits**

### Branding Design

Students will learn methods of research, concept design and implementation in the study of branding and identity through a combination of typography, layout and illustration solutions. A focus on the communication strategies of culture, business and organizations will teach students how to merge complex ideas into persuasive visual images across a variety of media for professional presentation. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

**CGD2212**

**3 Credits**

### Typography 1

A study of fundamental typographic principles as they apply to graphic design and communication. The history and technological development of type as well as its terminology, specifications and diverse applications will be covered. Studio projects using various graphics programs will involve the analysis, application and exploration of typographic issues in design. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

*Fee*

**CGD2213**

**3 Credits**

### 2D Design with the Computer

This course will provide students with the theoretical and practical foundations of design through the discussion of historical examples, major ideas and theories and exercises and projects geared toward exploring and developing solutions to visual design problems. Both lateral and critical thinking will be encouraged. Prerequisites: CGD1313 Creative Imagery with Photoshop and CGD1314 Illustrator Graphics and Design.

*Fee*

**CGD2215**

**3 Credits**

### Editorial Design and Illustration

Students learn to analyze and create images that portray its implicit as well as explicit meanings through a variety of media, both computer-based and traditional, with diverse image-making techniques and styles. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

**CGD2243**

**3 Credits**

### Children's Book Publishing

An outstanding children's book requires artful creativity and careful planning. In this course students learn an exciting approach for submission of children's books to publishers. The focus is on the preparation and computer techniques used in the creation of a storyboard and a book dummy for a 32-page children's book. The storyboard is a reduced, overall view of the book, displaying all of the pages within a few documents. The book dummy is a formal mock-up of the proposed book, which demonstrates how the illustrations and text actually interact with each other. Basic scanning, text and image manipulation using artistic computer techniques will be covered. Prerequisite: CGD1313 Creative Imagery with Photoshop.

**CGD2370**

**3 Credits**

### Print Layout

Integrating word processing, typographic explorations, raster-image manipulation and vector-graphics construction, students will learn to design and create printed documents that blend effective form and communication. The fundamentals of layout, typography, file management, image formats and resolution, as well as pre-press basics will be examined using Adobe In-Design, Photoshop and Illustrator. Prerequisite: CGD1313 Creative Imagery with Photoshop.

*Fee*

**CGD3047**

**3 Credits**

### Literary Publishing

This hands-on introduction to the world of independent publishing will explore all aspects of the editing, production and publication of a literary journal, as well as give students a broad overview of the literary marketplace. Students will gain practical experience with design, editing, acquisitions, art, proofing, digital publishing, distribution and marketing. The class will combine approaches, moving between small group labs and seminar styles of learning. This course is offered in conjunction with *The Literary Review*, FDU's international journal of contemporary literature. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design or CREW1001 Introduction to Creative Writing. (Equivalent to CREW3047 Literary Publishing.)

*Fee*

**CGD3300**

**3 Credits**

### Illustration: Special Topics

This course gives illustration-concentration majors the opportunity to study special techniques, learn specific skills, experiment with new software or experience and discover special illustration topics in the classroom. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

**CGD3303****3 Credits****Web Design**

This course will provide the students the opportunity to learn Adobe Dreamweaver, the industry standard web-development software. The class prepares students with the skills and knowledge of web publishing and the application of multimedia skills for the design and implementation of responsive websites using a variety of software, HTML and CSS.

*Fee***CGD3315****3 Credits****WordPress**

This course focuses on how to utilize WordPress' open-source templates and its HTML- and PHP-coded themes to design, create and maintain web pages and online blogs. Students learn to use WordPress' robust plugins and widget tools, which allow designers and developers to broaden its capabilities beyond the basic features. This course also teaches students how to set up and employ WordPress' dynamic content management system to change and revise the visual design and functionality of a WordPress website without changing the international content that is stored in MySQL databases. Prerequisite: CGD1313 Creative Imagery with Photoshop.

**CGD3351****3 Credits****Illustration Design**

This course will be an introduction to the concepts and techniques of illustration both on and off the computer. It exposes the student to a wide variety of methods and media for producing representational art both on and off the computer. The student will learn to present designed concepts in visual form, through the illustration of pictorial art for advertising, books, magazines, editorials, corporate and specialized posters. A focus on aesthetics, personal expression and client needs will be explored. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

*Fee***CGD3352****3 Credits****Typography 2**

Building on CGD2212 Typography 1, this course will approach typography in more detail and depth. Topics include form and counterform in type design, non-font solutions, type as shape and texture, special characters, styles, tables, page structure and output issues. Prerequisite: CGD2212 Typography 1.

*Fee***CGD3355****3 Credits****Package Design**

By studying the consumer, company branding and target markets, students learn to combine

text, colors and additional graphic elements to design unique logos, corporate identities and product lines. The focus is on effective visual communication through designing unique logos and product packaging, which are commonly utilized by commercial enterprises, businesses and organizations. This course teaches how and why a company's external image is important in promoting its public recognition and how graphic designers aid in selling their products or ideas. Students brainstorm, formulate and critique ideas; do initial sketches; and finalize their most effective concepts into digital form. Prerequisites: CGD1313 Creative Imagery with Photoshop and CG1314 Illustrator Graphics and Design.

**CGD3358****3 Credits****Project-based Web Design**

This course focuses on intermediate to advanced design features, extensions and behaviors available in Adobe software. Students enhance their web-design skills while learning more sophisticated Dreamweaver tools, focusing on CSS, HTML 5 and current trends in design. The class covers intermediate to advanced web-design topics on how to build effective navigation, laying out pages and working with typography, colors and backgrounds. Instruction is project-based, where students learn through the process of creating websites, while developing more extensive CSS and design skills along the way. Prerequisite: CGD3303 Web Design.

**CGD3360****3 Credits****Freelance Practices**

This course teaches students ways to network in the community and how to initiate client connections resulting in appointments to present their portfolio and discuss how they can be of service to their company. Students learn good communication, listening and note-taking skills to aid in understanding, organizing and evaluating the client's wants and needs. The course also covers how to expand the creative-thinking process by utilizing basic principles of marketing and business practices. Students learn to write proposals (including timelines and budgetary costs) with the goal of obtaining contractual graphic-arts projects. Hardware, software and outside-service requirements are also covered in this course.

**CGD3362****3 Credits****Mobile App Design**

Anticipating the limitations of the small screens, the various screen sizes, the different screen crops and the text-size preferences set by the user, good design planning is critical in app design. In this course students learn adaptive design, which adjusts the layout accordingly while still standardizing the look and functionality to be considered across all devices, guaranteeing

that the experience is the same regardless of device. This course emphasizes how app designers must take into consideration mobile-device limitations while still thinking creatively within those constraints. Taking advantage of mobile capabilities not available on a desktop computer, such as the use of the camera to snap images, signatures or location devices are also topics covered in this course. Prerequisite: CGD1313 Creative Imagery with Photoshop.

*Fee***CGD3365****3 Credits****Interactive Publishing**

Extending basic skills and knowledge acquired in CGD2370 Print Layout, students will learn to design, construct and manage effective interactive documents in Adobe InDesign. They will focus on the creative possibilities in interactive PDF, SWF, tablet and e-book publishing as well as continue to acquire knowledge of printing technologies and the overall publishing process using InDesign. Prerequisite: CGD2370 Print Layout.

*Fee***CGD3371****3 Credits****Sell Your Designs Online**

Students learn to be an entrepreneur as they create a variety of designs in Adobe software to sell in the online market. They will learn how to create a variety of designs for home decor and wearable art; how to showcase products effectively; how to build a storefront in Etsy, Society 6, Facebook or other online markets; how to present on social media; how to talk about their products; how to create a business plan; how to gain exposure for your brand; how to attract visitors to your store; and marketing strategies for a creative business. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

**CGD3375****3 Credits****Email Blast Design and Implementation**

This course teaches tips, tricks and resources for designing and creating beautiful, professional-looking email blasts and newsletters that render well and are useful to its recipients within this challenging medium. Learn how to work within the coding limitations of email clients across the board, supplying plain-text versions, how to implement thorough testing before launching and why to never make compatibility assumptions. Emphasis is placed on designing for relevance, coding within the medium constraints, respecting the reader, setting measurable goals and measuring success. Legal topics such as email-blast subscription options, terms and policies are discussed in this course. Prerequisite: CGD3303 Web Design.

*Fee*

# Art

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**CGD3574**

**3 Credits**

**Online Ad Design and Implementation**

In this course students will consider the needs of a website visitor and why clients buy ads. Students will analyze why different companies' goals vary from one campaign to the next and how to creatively design and implement for all sorts of advertising media on the internet. The focus will be on designing to gain exposure, brand recognition and improving sales and traffic to the client's website, thus expanding and strengthening business as a result of the ad campaign. Topics such as ad placement, click-through rates, direct communication, interactivity, flexibility, measurable results and the effectiveness of ad campaigns will be covered in this course. Prerequisite: CGD3303 Web Design.

*Fee*

**CGD3575**

**3 Credits**

**Fashion Illustration**

Students will learn drawing skills both on and off the computer to develop a foundation for producing conceptual fashion illustrations. This course teaches students to analyze and draw the female fashion figure from all viewpoints and how to design ideas in a fashion sketch. Students will focus on garment details, fabric, texture and color analysis, as well as figure proportion and movement in a variety of poses. Students will learn technical skills using a variety of media and the computer to render the latest research trends, collections, mood boards and styles. A general knowledge of the fashion industry and fundamental techniques of fashion design will also be covered. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

*Fee*

**CGD3577**

**3 Credits**

**Web Design II**

Learning to create an application and a browser-friendly website is essential in today's ever-changing web market. Using industry-standard software, students will study the various features of HTML 5 to create dynamic and responsive websites. The focus will be on learning the structural markup elements and attributes of HTML 5, native multimedia, drawing with the canvas element and browser support. Techniques on using cascading style sheets with CSS 3 to make visually stunning websites will also be covered in this course. Prerequisite: CGD3303 Web Design.

*Fee*

**CGD3580**

**3 Credits**

**Social Media Marketing Design**

This course focuses on designing and implementing social-media marketing practices and

establishing brand continuity to be used to engage the target audience, inspire them to act and keep them coming back for more. Students begin by creating an identity that will get a client noticed and remembered. Then, by incorporating the established branding, designing supporting graphics, writing engaging copy and structuring an exciting social-media marketing campaign, students learn how to increase a client's online presence. Through the use of graphics, animations, videos and written content, they will discover how to inspire engaged social-media communities, including forums, blogs, YouTube, Facebook and Twitter. Organic features as well as paid social-media strategies, increasing the loyalty of customers, keyword selection, search-engine rankings, setting goals and measuring successes are covered in this course.

*Fee*

**CGD3585**

**3 Credits**

**E-commerce Design**

This course teaches how to design database storefront websites, which draw on technologies such as electronic funds transfer, online transaction processing, inventory management systems, automated data-collection systems and security features. Students will carefully plan their product categories and displays, ease of navigation and how to provide a good built-in search engine to make finding specific products easy. The importance of featuring the products on an e-commerce site over incorporating unnecessary bells and whistles will be taught in this course. Topics, such as how to set up a secure functioning cart, making it as easy as possible for the customers to add items to their cart and to accept credit card payments in order to complete the checkout process, will also be covered. Students will also learn how to design and incorporate online contact forms. Legal issues will be discussed and students will learn how to implement confirmation-clause checkboxes where necessary, store policies, terms and conditions and FAQ pages. Prerequisite: CGD3303 Web Design.

*Fee*

**CGD4420**

**3 Credits**

**Thesis**

Students work on an in-depth, semester-long project. Students learn to prepare graphic portfolios and speak effectively and confidently about their projects as they present hypothetically to clients or to art directors on interviews. At the end of the semester, the students prepare visual displays of their finished projects. Students will speak to a group of FDU computer graphics professors about the process, challenges and how and why they arrived at their final results. A written paper about the experience, process, problem solving, choices, results, conclusions,

etc., is required at the end of the semester. Prerequisite: CGD3551 Illustration Design or CGD3363 Interactive Publishing.

*Fee*

**CGD4422**

**1-3 Credits**

**Graphic Design Internship I**

Students will intern at a company or organization, in a graphic design or web-design facility, for between a minimum of 50 hours (for 1 credit), 100 hours (for 2 credits) and 150 hours (for 3 credits) per semester.

**CGD4425**

**1-3 Credits**

**Graphic Design Internship II**

The course will provide an opportunity for the student to gain real-world experience in the field of graphic design or web design either through the continuation of CGD4422 Graphic Design Internship I, by entering a new internship facility or by working virtually with a professional company via the internet. The internship must be approved and evaluated by the computer graphics faculty member who is chosen as the internship mentor. To qualify for Graphic Design Internship II credits, the student must apply a minimum of 50 hours (for 1 credit), 100 hours (for 2 credits) and 150 hours (for 3 credits) per semester. Prerequisite: CGD4422 Graphic Design Internship I.

**CGD4500**

**3 Credits**

**Portfolio Preparation**

Students will create both a professional printed and online portfolio, résumé, letter of introduction and follow-up letter. They will also design personalized printed business cards. At the end of the semester, students will present their portfolios, respond to questions and discuss their interests with a panel of working professionals. Upon completion of this course, students will be better able to discuss their goals and how they match with the objectives of organizations they will be interviewing with upon graduation. Prerequisite: CGD3551 Illustration Design or CGD3363 Interactive Publishing.

*Fee*

**CGD4800**

**3 Credits**

**Graphic Design Independent Study**

Students will work independently on a special computer graphics project or topic, which will be approved by the supervising professor.

**CGD4900**

**3 Credits**

**Faculty/Student Research I**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.



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Maxwell Becton College of Arts and Sciences  
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Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: CGD4900 Faculty/Student Research I.

**CGDH2020****3 Credits****History of Graphic Design**

The course will trace the history of graphic design — from ancient civilization to the present. It will seek to answer whether graphic design is art, communications, craft, marketing or a combination of all. This course will have online readings and classroom lectures.

**CGDH2216****3 Credits****Design for Social Responsibility**

Designing powerful imagery that addresses critical social issues is a current trend in design. There is a need for social responsibility in graphic designs in both the public and private sectors, by large organizations and small entities. Designers can learn to use their work to increase public awareness of a variety of social issues across the globe as well as on an individual basis. Through a combination of craft and tools, students will learn how to communicate a powerful message with graphic design.

*Fee*

## Biological Sciences

**Department of Biological and Allied Health Sciences****BIOL1002, BIOL1012****3 Credits****Plants and Society**

The importance of plants to human life and the world, with emphasis on interrelationships between plants and animals; plant groups studied with reference to their ecology, structure, functions and their beneficial and harmful aspects. For nonbiology majors.

*Fee***BIOL1005, BIOL1006****4 Credits****Current Topics in Biology**

Explores current issues in biology that are of interest to informed citizens. Topics include, but are not limited to, emerging infectious disease, bioterrorism, cloning and stem cell research.

*Fee***BIOL1007, BIOL1017****4 Credits****Animal Biology**

Survey and phylogeny of the animal kingdom: the anatomy, physiology, reproductive cycles, ecology and behavior.

*Fee***BIOL1010****3 Credits****Lecture 3 hours****Human Sexuality**

Lectures, discussions and small group explore all aspects of human sexuality, including the biological, psychological, sociological and personal aspects. Includes gender, gender role, gender identity and sexual orientation; sexual behaviors based on value systems; communication, consent, responsibility for sexual health, reproductive rights and freedoms; and understanding sociopolitical influence.

**BIOL1024****3 Credits****Advanced Topics in Biology**

This course covers major biological topics of interest to society today. The instructor will select topics in areas such as biotechnology, genetics, cell biology, microbiology, biodiversity and environmental science. The purpose of this course is to increase science literacy and understanding of scientific analysis and methods. Students will learn central concepts in biology and apply them to analyze and evaluate scientific instruction.

**BIOL1025****3 Credits****Human Biology and Non-infectious Diseases**

This course will focus on human biology and health using a systems-based approach. The cardiovascular system as well as the urinary system will allow students to deepen their understanding of some of the most common causes of premature human death in the Western world. Current treatment options will be discussed in the context of human physiology.

**BIOL1041, BIOL1042****3 Credits****Tropical Biology**

An introduction to tropical biology, with a particular emphasis on tropical forests. Course topics include different types of tropical forest, rainforest diversity and function and the importance of geological processes on tropical forest type and function. This course will also address the distribution of tropical forests and sustainable development and tourism efforts related to tropical habitats. This course includes a mandatory short-term, study-abroad component in Costa Rica in January.

*Fee***BIOL1070, BIOL1071****4 Credits****Ecosystem and Environmental Science**

This course provides an introduction to global ecosystems, the negative effects of humans on ecosystems and living sustainably as a human population. The course will cover interactions between organisms and their environment, energy flow, nutrient cycles, global resource use and development, pollution, environmental health and principles of sustainability. The course's laboratory component will include a survey of plants and animals and field trips to terrestrial and aquatic ecosystems. For nonbiology majors.

*Fee***BIOL1080, BIOL1081****4 Credits****Structure and Function of the Human Body**

A systems-based overview of the structure and function of the human body. The role of each organ system in maintaining homeostasis is examined. The course fulfills the lab science requirement for nonmajors.

*Fee***BIOL1090, BIOL1091****4 Credits****Human Biology and Health**

This course is a survey of the structure and function of the human body, from the cellular to the organismic level of organization. The role of organ systems, nutrition, parasites and genetics will be considered in the perspective of human health. For nonbiology majors; fulfills the Tier 1 general education laboratory science requirement.

*Fee***BIOL1110****2 Credits****Medical and Pathological Terminology**

An analytical study of medical and pathological terminology relevant to the health sciences. The use of shared etymologies and word-building systems is applied to decipher unfamiliar medical terms. Material is presented in lecture and workshop format, including diagnostic medical equipment.

**BIOL1170****3 Credits****Introduction to Ocean Life**

Marine ecosystems are an essential component to life on earth and cover 70 percent of the earth's surface. This course will provide a general study of the biology of marine life, including the ecology of estuarine, intertidal, pelagic and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the marine environment. Topics will include general marine biology and oceanography as well as the effects of climate change and anthropogenic influences on the ocean.

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## BIOL1180

3 Credits

### Climate Change Biology

The course will examine human-induced climate change and the resulting shifts in the distribution of species and the timing of biological events (phenology). Basic principles of climatology will be presented, including the natural and enhanced greenhouse effect, climatological cycles and positive/negative climate feedback loops. The influence of climate change on biological systems will be examined from both a modern perspective and through geologic time. Additional topics to be studied include extinction events; adaptation and mitigation to climate change; species and landscape management; basic climate modeling; and the political, ethical and economic implications of climate change. Finally, students will be responsible for the presentation of case studies in both an oral and written format.

## BIOL1190

3 Credits

### Exploring Biology Behind American Museum of Natural History

In this course, students will explore some of the key biological concepts studied and exhibited in the American Museum of Natural History in New York City. These concepts include biological diversity, with an emphasis on mammals, birds and marine life; human origins, migrations and evolution; and dinosaurs and vertebrate origins. Half of class time will be spent at FDU learning key biological concepts related to the exhibits. The other half will be spent at the museum (three to four large blocks of time). The course will also include how the museum itself has evolved over the past 100 years, changing how it displays biological connections and certain aspects of the tree of life as new scientific data comes to light. Students will also learn how scientific information is communicated to the public in different ways, including dioramas, models, video and interactive exhibits.

## BIOL1201, BIOL1205

4 Credits

### Biological Diversity

Study of biological diversity across three domains. Emphasis on morphology, physiology and phylogenetic comparison of species in Eukarya.

*Fee*

## BIOL1202, BIOL1204

4 Credits

### Introduction to Molecules, Cells and Genes

Introduction to molecular and cellular procession in biological systems.

*Fee*

## BIOL1205, BIOL1207

4 Credits

### Anatomy and Physiology I

Integrated structural and functional systematic study of the human body including cells, tissues and organ systems. Homeostasis and disorders with health and clinical applications are examined. Dissection of selected animal systems, integrated with exercises emphasizing human structure and function. Restricted to allied health students and nonmajors.

*Fee*

## BIOL1206, BIOL1208

4 Credits

### Anatomy and Physiology II

Continued integrated structural and functional systematic study of the human body including all major body systems. Homeostasis and disorders with health and clinical applications are examined. Dissection of selected animal systems, integrated with exercises emphasizing human structure and function. Restricted to allied health students and nonmajors.

*Fee*

## BIOL1400, BIOL1401

4 Credits

### Introduction to Microbes

This introductory survey course examines the role of beneficial and harmful microbes including bacteria and viruses in environmental processes and disease. Corequisite: BIOL1401 Laboratory: Introduction to Microbes.

## BIOL2000

1 Credit

### Sophomore Research Experience

Introduction to laboratory techniques in biological research. Permission of allied health and biological sciences chair required.

## BIOL2001

1 Credit

### Sophomore Research Experience II

Second part of the introduction to laboratory techniques in biological research. Requires permission from allied health and biological sciences chair.

## BIOL2003, BIOL2004

4 Credits

### Cell Biology

Structure and function of cells as the basic unit of life. Required in the biology and allied health curricula. Prerequisites: BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; CHEM1201, CHEM1202 General Chemistry I, II; CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

*Fee*

## BIOL2049, BIOL2050

4 Credits

### Ecology

The relationship between organisms and their environments, emphasizing faunal and floral analyses of ecosystems. Prerequisites: BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes.

*Fee*

## BIOL3009, BIOL3019

4 Credits

### Microbiology

An introduction to basic prokaryote biology, including medical and ecological microbiology. Viruses are also examined. Prerequisites: BIOL2003, BIOL2004 Cell Biology; BIOL2049, BIOL2050 Ecology; CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

*Fee*

## BIOL3028, BIOL3029

4 Credits

### Plant Morphology

The structure and development of representatives of the major plant groups. Identification of specimens from herbarium and field collections. Prerequisites: BIOL2003, BIOL2004 Cell Biology; BIOL2049, BIOL2050 Ecology; BIOL3256, BIOL3257 Genetics; CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

*Fee*

## BIOL3221, BIOL3251

4 Credits

### Microbiology — Medical Focus

A microbiology course covering introductory concepts (structure, nutrition, growth, metabolism and basic genetics of microbes); immunology; pathogenicity; and microbial disease (including detection and control). Prerequisites: BIOL1201, BIOL1203 Biological Diversity and CHEM1201, CHEM1202 General Chemistry I, II. Corequisites: BIOL3256, BIOL3257 Genetics and CHEM2261 Organic Chemistry I.

*Fee*

## BIOL3253, BIOL3254

4 Credits

### Comparative Anatomy

This course is an intensive comparative study of the anatomy of vertebrates, examining vertebrate structure from both an evolutionary and functional perspective. Course topics include vertebrate evolution, key morphological characteristics of the major vertebrate groups and the diversity and evolution of vertebrate organ systems (including human anatomy). Laboratory includes dissection of representative vertebrates, including the dogfish shark, mudpuppy salamander and domestic cat. Mammalian organ systems will receive additional emphasis in lab, including studies of the human skeleton and

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anatomical models, and dissection of the sheep/pig heart, kidney, brain and eye. Prerequisites: BIOL1201 Biological Diversity; BIOL1202 Introduction to Molecules, Cells and Genes; BIOL2003 Cell Biology; and BIOL2049 Ecology.

*Fee***BIOL3256, BIOL3257****4 Credits****Genetics**

An introduction to the genetics of prokaryotic and eukaryotic cells, including the molecular biology of DNA replication, transcription and protein expression. Mendelian genetics, non-Mendelian inheritance, mutation, gene mapping and population genetics are examined. Prerequisites: BIOL2003, BIOL2004 Cell Biology; CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

*Fee***BIOL3310, BIOL3311****4 Credits****Evolution**

This course examines evolution, focusing on the mechanisms within populations to explain large-scale patterns observed in evolutionary biology. Topics include genome evaluation, sexual selection, speciation, human health and the role of natural selection and chance in evolution. The course will emphasize the application of learned concepts to real data with a strong focus on collaborative learning environment. Note: This course includes one required field trip on a Saturday (whole day). Exact date will be specified in the syllabus. Prerequisites: BIOL1201 Biological Diversity; BIOL1202 Introduction to Molecules, Cells and Genes; BIOL2003 Cell Biology; and BIOL2049 Ecology.

*Fee***BIOL3332, BIOL3333****4 Credits****Immunology**

Introduction to the immune system and its application to biological research using the viruses as a model parasitic system in the laboratory.

**BIOL3337, BIOL3327****4 Credits****General Physiology**

This is an integrative course in animal physiology, examining the coordinated mechanisms employed by animals to maintain homeostasis across multiple levels of biological organization. Lectures will consider various representative vertebrates and invertebrates, with an emphasis on the proper functioning of organ systems in humans and other mammals. Laboratory will include hands-on experiments and demonstrations of physiological principles in classic animal models, as well as measurement techniques applicable to human medicine. Prerequisites: BIOL1201 Biological Diversity; BIOL1202 In-

roduction to Molecules, Cells and Genes; BIOL2003 Cell Biology; and BIOL2049 Ecology.

*Fee***BIOL3360, BIOL3361****4 Credits****Introduction to Molecular Biology**

This course provides an introduction to modern molecular biology, which is the study of biology at the level of molecules (DNA, RNA, protein). Topics covered include the regulation of gene expression, recombinant DNA methods and uses and analysis of genome sequences. The class will also explore how and why transgenic animals are made; ways to analyze DNA, RNA and protein expression; newer areas of gene regulation such as RNA and epigenetics, as well as the human genome sequence and forensic DNA analysis. Prerequisites: BIOL2003 Cell Biology; BIOL3256 Genetics; and CHEM2261 Organic Chemistry I. Corequisite: BIOL3361 Introduction to Molecular Biology Lab.

*Fee***BIOL3380, BIOL3381****4 Credits****Animal Behavior**

A study of the causation, development and adaptive value of behavioral patterns of animals as individuals and in groups. Topics will include biological rhythms, migration, interactions, communication, reproductive behavior and sociality. Laboratory work will emphasize field investigations. Prerequisites: BIOL1201 Biological Diversity; BIOL1202 Introduction to Molecules, Cells and Genes; BIOL2003 Cell Biology; and BIOL2049 Ecology.

*Fee***BIOL3390, BIOL3391****4 Credits****Conservation Biology and Wildlife Management**

This course focuses on the science of conservation biology, including the study of biodiversity, impacts of humans on the environment, sustainable resource use and management and restoration of habitats and ecosystems. Topics will also include aspects of environmental policy and ethics. Prerequisites: BIOL1201 Biological Diversity, BIOL2049 Ecology and BIOL3256 Genetics.

*Fee***BIOL3408, BIOL3409****4 Credits****Forensic Science**

This course is an introduction to forensics from a chemical and biological perspective. Topics covered include collection and analysis of physical evidence, organic and inorganic analysis of samples, microscopy, drugs and toxicology, serology and DNA evidence. Discussions on current issues and new technologies are included. For biology and chemistry majors only. Prerequisite: BIOL3256, BIOL3257 Genetics;

CHEM2262, CHEM2264 Organic Chemistry II; or permission of instructor.

*Fee***BIOL3413, BIOL3423****4 Credits****Entomology**

Entomology will introduce students to the astonishing species and phenotypic diversity found in insects. Using ecological and evolutionary concepts, the class will explore the causes and consequences of their tremendous success and discuss their effects on human health and other aspects of human living. The course will emphasize the application of the learned concepts with a strong focus on a collaborative learning environment. Field trips will accompany the lab, in which students will have opportunities to collect and identify major insect groups. Note: This course includes two required field trips on a Saturday (one during the day and one during the evening). Exact dates will be specified in the syllabus. Prerequisites: BIOL1201 Biological Diversity and BIOL1202 Introduction to Molecules, Cells and Genes.

*Fee***BIOL3420, BIOL3421****4 Credits****Developmental Biology**

In this course, students will explore the many changes associated with the growth and cell specialization leading to a new multicellular organism. The class will focus on the embryonic stages of animal development, including learning major embryonic structures. It also will link changes in shape and form of the developing embryo to changes on the cellular level, including changes in gene expression associated with pattern formation. Prerequisites: BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; BIOL2003, BIOL2004 Cell Biology; and BIOL3256, BIOL3257 Genetics.

*Fee***BIOL4100, BIOL4110****4 Credits****Marine Ecology**

A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at individual, population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOL1201 Biological Diversity; BIOL1202 Introduction to Molecules, Cells and Genes; BIOL2003 Cell Biology; BIOL2049 Ecology; and BIOL3256 Genetics. Corequisites: BIOL4110 Marine Ecology Lab, CHEM2262 Organic Chemistry II, CHEM2264 Organic Chemistry Laboratory II and MATH1203 Calculus I.

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## BIOL4401

2 Credits

### Biology Seminar

This course reviews current topics and research methods in the biological sciences through the scientific literature, research, invited speakers and student presentations. Students completing an internship of supervised research during their senior year are encouraged to enroll in the senior seminar concurrently. Students must have completed at least 28 credit hours in biology course work in order to enroll in this course. This course may only be taken once.

## BIOL4430, BIOL4435, BIOL4436, BIOL4438

1–3 Credits Each Semester

### Research in Biology I, II, III, IV\*

This course will explore a specific topic within ecology and environmental biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIOL2003, BIOL2004 Cell Biology and BIOL2049, BIOL2050 Ecology. Corequisites: BIOL3256, BIOL3257 Genetics and permission of instructor.

*Fee*

## BIOL4431

4 Credits

### Selected Studies in Ecology and Environmental Biology

This course will explore a specific topic within ecology and environmental biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field.

*Fee*

## BIOL4439

0 Credits

### Mentored Research in Biology

Students will work with a research mentor in biology to conduct an independent research project.

## BIOL4444

4 Credits

### Selected Studies in Cell and Molecular Biology

This course will explore a specific topic within cell and molecular biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIOL2003, BIOL2004 Cell Biology and BIOL2049, BIOL2050 Ecology. Corequisites: BIOL3256, BIOL3257 Genetics and permission of instructor.

*Fee*

## BIOL4446, 4447

16 Credits

### Allied Health Consortium I and II

Clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

## BIOL4448

16 Credits

### Allied Health Consortium III

Third semester of clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

## BIOL4449

16 Credits

### Allied Health Consortium IV

Fourth semester of clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

## BIOL4452

4 Credits

### Selected Studies in Anatomy and Physiology

This course will explore a specific topic within anatomy and physiology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIOL2003, BIOL2004 Cell Biology and BIOL2049, BIOL2050 Ecology. Corequisites: BIOL3256, BIOL3257 Genetics and permission of instructor.

*Fee*

## BIOL4460, BIOL4461

4 Credits

### Ecotoxicology

This course will provide a general background into the science of toxicology while incorporating specific environmental and ecological effects. Topics include: acute and chronic exposures, bioaccumulation and trophic transfer of toxic compounds, sublethal and lethal effects of compounds on organisms, biomarkers, biomonitoring and population and community-level effects of toxin exposure. The goal is to provide a foundation in the field of environmental toxicology and an understanding of mechanisms and effects of toxin exposure in organisms. Prerequisites: BIOL2003, BIOL2004 Cell Biology; BIOL2049, BIOL2050 Ecology; BIOL3256, BIOL3257 Genetics; and CHEM2261, CHEM2262 Organic Chemistry I, II. Corequisites: BIOL4461 Ecotoxicology Lab and MATH1203 Calculus I.

*Fee*

## BIOL4470, BIOL4471

4 Credits

### Introduction to Neuroscience

This course will familiarize students with various branches of neuroscience and the study of the nervous system. Branches include: molecular, cellular, physiological and systems neuroscience. The course will cover topics such as how cells of the nervous system communicate with each other electrically and chemically, how some drugs and disorders can affect this communication and how this communication ultimately results in sensation, perception, memory and behavior. Methods for each of these branches of neuroscience will also be covered. Prerequisites: BIOL2003 Cell Biology and BIOL3256 Genetics.

*Fee*

## BIOL4477

1–3 Credits

### Honors Research and Thesis

Permission must be obtained in writing from mentor, student's adviser and the department chairperson.

## BIOL4480, BIOL4481

4 Credits

### Insect-transmitted Diseases

Learn about the deadliest animals on earth — insects! Everyone has heard of Lyme disease and West Nile virus. Separate fact from fiction regarding these and other ailments. This course explores why insects are able to transmit some diseases so successfully, how this influences humans throughout the world and what steps can be taken to reduce their impact. Prerequisites: BIOL1201, BIOL1203 Biological Diversity; BIOL2049, BIOL2050 Ecology; and BIOL3256, BIOL3257 Genetics. Corequisite: BIOL4481 Insect-transmitted Diseases Lab.

*Fee*

## BIOL4496

1–3 Credits

### Internship in Biology I

Supervised internship in a field of biological science. Students will follow both department and career-development guidelines for completing the internship.

## BIOL4497

1–3 Credits

### Internship in Biology II

Supervised internship in a field of biological science — second internship experience. Students will follow both department and career-development guidelines for completing the internship.

## BIOL4500, BIOL4501

4 Credits

### Cell Biology Cancer

Cancer is a collection of different genetic diseases. In this course, the class will discuss the

\*Students have to take a separate research class for every semester of research.

major genes and cellular pathways that play a role in cancer. It also will explore how these genes regulate the cell under normal conditions and how they are perturbed in cancerous cells. Some of the latest cancer therapies developed to target these misregulated genes will also be covered. Prerequisites: BIOL2003, BIOL2004 Cell Biology and BIOL3256, BIOL3257 Genetics.

*Fee*

**BIOL4600**

**4 Credits**

**Gene Expression and Regulation**

Regulation of gene expression. Gene expression, in which genetic information stored in the cellular DNA is decoded, is central to the survival of living organisms. The goal of this course is to introduce the biochemical mechanisms involved in gene expression and describe the principles underlying its regulation. Topics covered include bacterial and eukaryotic RNA transcription, translation and processing. The course includes lectures and discussion of primary research articles. Prerequisite: BIOL3256 Genetics. Corequisite: BIOL4601 Gene Expression and Regulation Laboratory.

**BIOL4601**

**0 Credits**

**Gene Expression and Regulation Laboratory**

This laboratory course is taken concurrently with BIOL4600 Gene Expression and Regulation. Prerequisite: BIOL3256 Genetics. Corequisite: BIOL4600 Gene Expression and Regulation.

*Fee*

**BIOL4840**

**1–3 Credits**

**Internship in Biology**

Students arrange for an internship experience through a biology professor and the Career Development Office. Students arrange to meet the requirements for the class through the biology internship adviser. The student will learn and assist in the design and implementation of various research projects relating to medical treatment. Students will also have the opportunity to observe physicians as they attend to the needs of a wide variety of patients exhibiting various health problems. This course is a nongraded course and the student will receive a Pass/No Credit grade.

**Graduate Courses**

Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the chairperson of the department. A list of courses and descriptions is contained in the *Graduate Studies Bulletin*.

# Chemistry

**Department of Chemistry and Biochemistry**

**CHEM1022**

**3 Credits**

**Lecture**

**The Chemistry of Nutrition**

Nutrition and the chemical composition of natural and synthetic food, along with related topics of current interest, such as food additives, fad and ethnic diets and megavitamin therapy. The examination of the composition and production of food and food additives.

**CHEM1027, CHEM1028**

**4 Credits**

**Lecture; Laboratory**

**Chemistry for the Global Citizen**

Provides a basic understanding of chemistry knowledge and concepts within the context of everyday life and global issues. Topics addressed include global warming, acid rain, nuclear and alternate power sources and other issues relevant to everyday life. Students will develop a basic understanding of chemical concepts and begin to understand the diverse applications of chemistry in society.

**CHEM1051**

**3 Credits**

**Lecture**

**Chemistry and the Crime Scene**

This course will look at the concepts and techniques of forensic chemistry, with emphasis on how to collect, process and present chemical evidence. Lectures will include a discussion of the crime scene, collection of evidence, analysis of organic and inorganic samples and processing of DNA samples. Students will learn how scientific methods and common laboratory practices continue to be used to solve the world's most notable and challenging cases. Satisfies Tier II core science requirement for all nonscience majors.

**CHEM1107, CHEM1117**

**4 Credits**

**Lecture; Laboratory**

**Chemistry for Health Sciences**

Chemical principles with examples taken from health sciences. Organic compounds significant for the medical field and biochemical processes with human focus.

**CHEM1201, CHEM1202,**

**6 Credits (3 Credits Each Semester)**

**Lecture; Recitation**

**General Chemistry I, II**

Fundamental principles of chemistry, with emphasis on atomic and molecular structure, physical, chemical and periodic properties, stoichiometry, energetics, kinetics and equilibria of reactions, and descriptive chemistry of ele-

ments, including theory of qualitative analysis of common ions. Prerequisite: algebra.

CHEM1201 is prerequisite for CHEM1202.

Corequisites: CHEM1203, CHEM1204 General Chemistry Laboratory I, II; and CHEM1211, CHEM1212 Recitation: General Chemistry I, II. *CHEM1201, CHEM1211 Fall, Summer I; CHEM1202, CHEM1212 Spring, Summer III*

**CHEM1203, CHEM1204**

**2 Credits (1 Credit Each Semester)**

**Laboratory**

**General Chemistry Laboratory I, II**

Laboratory experiments emphasizing representative physical and chemical properties, synthetic and analytical techniques, and including an introduction to the qualitative analysis of the common ions. Corequisites: CHEM1201, CHEM1202 General Chemistry I, II. *CHEM1203 Fall, Summer I; CHEM1204 Spring, Summer III*

**CHEM2211, CHEM2213**

**4 Credits**

**Lecture; Laboratory**

**Inorganic Chemistry**

Principles of atomic and molecular structure, stereochemistry, periodicity and bonding, with emphasis on the main group elements and their descriptive chemistry. Also covers topics such as hydrogen bonding, acid-based chemistry, inorganic polymers, geochemistry and metallic bonding. Prerequisite: CHEM1202, CHEM1204 General Chemistry II.

**CHEM2221, CHEM2223**

**4 Credits**

**Lecture; Laboratory**

**Analytical Chemistry**

Principles of modern quantitative methods in chemistry, including the study of chemical equilibria, reaction kinetics, acidity and complex formation. The laboratory work involves practical applications of inorganic and organic biochemical analysis using volumetric, gravimetric, chromatographic and instrumental techniques. Prerequisite: CHEM1202, CHEM1204 General Chemistry II.

**CHEM2261, CHEM2262**

**6 Credits (3 Credits Each Semester)**

**Lecture; Recitation**

**Organic Chemistry I, II**

Structure and chemical properties of compounds of carbon, with emphasis on electronic theory, fundamental mechanisms of reaction and principles of synthesis. Prerequisite: CHEM1202, CHEM1204 General Chemistry II. Corequisites: CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II; and CHEM2265, CHEM2266 Recitation: Organic Chemistry I, II. The first semester is prerequisite to the second.

*CHEM2261 Fall, Summer I; CHEM2262 Spring, Summer III*

# Chemistry

Maxwell Becton College of Arts and Sciences  
Florham Campus

**CHEM2263, CHEM2264**  
**2 Credits (1 Credit Each Semester)**

**Laboratory**

**Organic Chemistry Laboratory I, II**

A laboratory course taken simultaneously with CHEM2261, CHEM2262 Organic Chemistry I, II that illustrates important principles of structure and reactivity, synthesis and analysis and structure determination of organic compounds. *CHEM2263 Fall, Summer I; CHEM2264 Spring, Summer III* *Fee*

**CHEM3241, CHEM3242**  
**6 Credits (3 Credits Each Semester)**

**Lecture; Recitation**

**Physical Chemistry I, II**

Introduction to the principles of physical chemistry from both macro- and microscopic viewpoints: thermodynamics, phase and chemical equilibria, electrochemistry, kinetics, quantum mechanics, spectroscopy and molecular structure. Prerequisites: CHEM2262, CHEM2264 Organic Chemistry II, MATH2202 Calculus II and PHYS2004 General Physics with Calculus II or PHYS1002 General Physics II. The first semester is prerequisite to the second. Corequisites: CHEM3245, CHEM3246 Recitation: Physical Chemistry I, II. Note: Some students may take Physical Chemistry lecture without the lab but they may not take the lab without the lecture.

*CHEM3241, CHEM3245 Fall; CHEM3242, CHEM3246 Spring*

**CHEM3243, CHEM3244**  
**4 Credits (2 Credits Each Semester)**

**Laboratory**

**Physical Chemistry Laboratory I, II**

Laboratory experimentation designed to demonstrate fundamental laws, concepts and mathematically derived relationships involving selected physicochemical properties of matter and the interactions of energy with matter. Corequisites: CHEM3241, CHEM3242 Physical Chemistry I, II.

*CHEM3243 Fall, CHEM3244 Spring*

**CHEM3281**

**3 Credits**

**Lecture**

**Biochemistry I**

Structure and function of biological molecules. Prerequisite: CHEM2262, CHEM2264 Organic Chemistry II.

*Fall*

**CHEM3282**

**3 Credits**

**Lecture**

**Biochemistry II**

Current concepts of biochemistry with continued emphasis on the structure and function of biological macromolecules, metabolism and genetic information. Metabolic control, membrane transport, biosynthetic pathways of biological

intermediates, expression and transmission of genetic information and the biochemical basis of molecular physiology.

*Spring*

**CHEM3589**

**1 Credit**

**Laboratory**

**Biochemistry Laboratory**

The preparation, separation and identification of biochemicals using modern extractive, chromatographic and spectroscopic techniques.

Corequisite: CHEM3281 Biochemistry I.

*Fall*

**CHEM4215**

**3 Credits**

**Lecture**

**Advanced Inorganic Chemistry**

Advanced bonding theories, structures, stereochemistry and reaction mechanisms, with emphasis on transition metal coordination and sigma and pi-bonded organometallic compounds. Also covers topics such as nonaqueous solutions, catalysis, descriptive chemistry of the transitional metals, solid-state chemistry and bioinorganic chemistry. Prerequisites:

CHEM2211, CHEM2213 Inorganic Chemistry and CHEM3242 Physical Chemistry II.

*Spring*

**CHEM4233**

**3 Credits**

**Lecture**

**Instrumental Analysis**

Theory and applications of spectroscopy, electrochemistry and chromatography to problems in chemical analysis, with an introduction to computerized instrument control and data handling and an emphasis on comparison of methods and interpretation of data. Prerequisite: CHEM3242 Physical Chemistry II. Corequisite: CHEM4234 Instrumental Analysis Laboratory.

*Fall*

**CHEM4234**

**2 Credits**

**Laboratory**

**Instrumental Analysis Laboratory**

Instrumentation for methods involving spectrometry (such as UV/Vis, IR, AA, NMR), chromatography (GC, HPLC, TLC) and electrochemistry (potentiometry, voltammetry). Computer handling of data and emphasis on report writing. Corequisite: CHEM4233 Instrumental Analysis.

*Fall*

**CHEM4235**

**3 Credits**

**Pharmaceutical Analysis**

The analytical chemistry unique to pharmaceutical compounds from the viewpoint of a pharmaceutical scientist.

**CHEM4253**

**3 Credits**

**Pharmacokinetics**

The study of the rate of change of drug concentration in the body. The understanding of the absorption, distribution, biotransformation and excretion of drugs is used in the design and optimization of drug formulations and dosage regimens.

**CHEM4263**

**3 Credits**

**Introduction to Medicinal Chemistry**

This course is based on all branches of chemistry, but especially organic chemistry. Its focus is on improving a drug's therapeutic effect while minimizing its undesirable side effects.

**CHEM4285**

**3 Credits**

**Pharmacology**

A study of drugs, their history, sources, physical and chemical properties, compounding, biochemical and physiological effects, mechanism of action, absorption, distribution in the body and therapeutic uses.

**CHEM4351**

**3 Credits**

**Lecture**

**Chemical Kinetics**

A study of kinetic theory, rate laws, reaction mechanisms, absolute rate theory, salt effects. Prerequisites: CHEM3242, CHEM3244 Physical Chemistry II and MATH2202 Calculus II.

**CHEM4373**

**3 Credits**

**Lecture**

**Polymer Chemistry**

A study of natural and synthetic polymers derived from free radical, cationic and anionic polymerizations. Prerequisite: CHEM3242 Physical Chemistry II.

**CHEM4401**

**1 Credit**

**Lecture/Seminar**

**Chemistry Seminar**

Chemical literature is reviewed through lectures, library assignments and student seminars. Prerequisite: CHEM3242, CHEM3244 Physical Chemistry II.

*Spring*

**CHEM4430**

**1-3 Credits Each Semester**

**Lecture**

**Selected Topics in Chemistry**

An exploration of recent developments in special fields of chemistry.

# Chinese • Cinema Studies

Maxwell Becton College of Arts and Sciences  
Florham Campus**CHEM4436, CHEM4437**

0–3 Credits

**Sophomore Mentored Research in Chemistry**

An individual research project taken under the supervision of a faculty mentor. A final research report must be submitted. Open to students in the sophomore year.

**CHEM4438, CHEM4439**

0–3 Credits

**Junior Mentored Research in Chemistry**

An individual research project taken under the supervision of a faculty mentor. A final research report must be submitted. Open to students in the junior year.

**CHEM4440, CHEM4441**

0–3 Credits

**Senior Mentored Research in Chemistry**

An individual research project taken under the supervision of a faculty mentor. A final research report must be submitted. Open to students in the senior year.

**CHEM4477, CHEM4478**

1–3 Credits

**Laboratory****Honors Research and Thesis**

For University honors candidates in chemistry.  
*Fall, Spring*

**CHEM4490**

1–3 Credits

**Lecture****Selected Subjects in Chemistry**

An exploration of recent developments and research in special fields of chemistry. Prerequisite: CHEM3242, CHEM3244 Physical Chemistry II.

**CHEM4501**

1 Credit

**Lecture****Chemistry Capstone Research Experience**

Provides students with an opportunity to put to practical use the academic and technical knowledge accrued during their four years within the major. Students will learn about technical writing, presentation skills and effective research tools in preparation for a future in the area of chemistry. The course offers modules on using literature to tackle scientific problems, how to effectively present research and writing a scientific publication. Each student will be required to develop a scientific project, perform effective background research, compile data and conclusions, present the work in an oral presentation and write a technical paper describing the work. Prerequisite: CHEM3242, CHEM3244 Physical Chemistry II.

**CHEM4651**

3 Credit

**Lecture****Chemical Thermodynamics**

Principles of classical and statistical thermodynamics and their application to the study of chemical equilibrium of reactions in gas and solution phase. Covers the laws of thermodynamics, concepts of entropy and free energy, properties of solutions and chemical potential. Prerequisite: CHEM3242, CHEM3244 Physical Chemistry II.

**CHEM4685**

3 Credits

**Pharmacology**

A study of drugs, their history, sources, physical and chemical properties, compounding, biochemical and physiological effects, mechanism of action, absorption, distribution in the body and therapeutic uses. Prerequisite: CHEM2262 Organic Chemistry II.

**CHEM4800**

1–3 Credits Each Semester

**Laboratory****Independent Study in Chemistry**

An individual research project undertaken under a faculty supervisor. A final research report must be submitted. Open only to upper-level students.

*Fall, Spring*

## Chinese

**Department of Literature,  
Language, Writing and Philosophy****CHIN1001**

3 Credits

**Beginning Chinese I**

Introduction to Mandarin Chinese pronunciation, grammar and writing with emphasis on speaking and comprehension. Corequisite: CHIN1007 Chinese Practicum I.

**CHIN1002**

3 Credits

**Beginning Chinese II**

Additional beginning-level practice in Mandarin Chinese pronunciation, grammar and writing with emphasis on speaking and comprehension. Prerequisite: CHIN1001 Beginning Chinese I.

**CHIN1007**

1 Credit

**Chinese Practicum I**

This course is linked to CHIN1001 Beginning Chinese I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: CHIN1001 Beginning Chinese I.

**CHIN1008**

1 Credit

**Chinese Practicum II**

This course is linked to CHIN1002 Beginning Chinese II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: CHIN1002 Beginning Chinese II.

## Cinema Studies

**School of the Arts****CINE1006**

3 Credits

**Hollywood Looks in the Mirror**

From literature to filmmaking, there is a tradition of looking at the unique world of filmmaking. Beginning with “What Makes Sammy Run” and quickly moving to the screen, this class will look at what filmmakers see when they look at the film business. Screenings may include “Day for Night,” “Bowfinger,” “What Just Happened,” “Stuntman,” “Lost in Oblivion” and “The Big Picture.” What these films tell us about the world of work will be included in the course.

**CINE1007**

3 Credits

**Working 9–5 on Film**

As adults, people spend most of their time at work, but as seen on film and TV, the world of work is not a welcome place. In this course, the class will investigate representations of work on-screen. Whether in “Office Space,” “Clerks,” “Working Girl,” “The Office” or “Time Out,” work is seen as a separate world, sometimes mysterious and often kept secret from the rest of people’s lives. This course will look at the work environment as seen on screen, and consider what this has to say about the way people see their lives.

**CINE1350**

3 Credits

**History of Film**

The history of film from the earliest attempts to visually reproduce motion to the sophistication of today’s motion picture production, through the discussion and screening of films by D.W. Griffith, Alfred Hitchcock, Cecil B. DeMille, Francis Ford Coppola and international artists and their films. (Film clips and full screenings.)

**CINE1360**

3 Credits

**History of Television**

This course examines the development of television from experiments in the late 1800s through the Golden Age of the 1950s and up to the present. Through studying historical television programs, the class examines programming, events and commercials responsible for reshaping American entertainment and values.

# Cinema Studies

Maxwell Becton College of Arts and Sciences  
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## CINE1501

3 Credits

### **Cinematic Storytelling**

A basic introduction to the art of telling the visual story, examining the work of the screenwriter, art director, producer, director, actor, music composer, editor and studio executive. Such subjects as a film's theme and focus, genre and market are closely discussed. The class consists of viewing film clips, doing readings and having discussions on what are all the elements that contribute to the visual story — the how and why.

## CINE2004

3 Credits

### **War on Film**

From action films like "Saving Private Ryan" to behind-the-frontlines stories like "Born on the Fourth of July" and "Jarhead," the war film itself has become a genre. This course will look at the history of the conflict the film depicts, what films from that era say about people's view of themselves and how changes in the historical view have affected screen visions as well. The course will include films such as "The Hurt Locker," "The Bridge on the River Kwai," "Battle of the Bulge," "Das Boot," "Full Metal Jacket," etc.

## CINE2005

3 Credits

### **French Cinema**

Development of French film with emphasis on the French New Wave. Introducing special topics in acquainting students with significant contributions emerging from the French cinematic tradition, this course focuses on the French cinema after World War II. Films are studied generically, thematically and historically. Emphasis is placed on issues of film analysis and theory. (Equivalent to FREN2005 French Film.)

## CINE2008

3 Credits

### **The Films of Wes Anderson**

From "Bottle Rocket" to "The Royal Tenenbaums" to "The Grand Budapest Hotel," Wes Anderson has made his style and approach to film a signature that cannot be confused with any other. The class will look at the design behind the filmmaking, question whether it sometimes becomes more important than the story the film tells and how the filmmaker contributes to the culture of his time.

## CINE2010

3 Credits

### **Films of Spike Lee**

This course will study the influential works of film director Spike Lee. From his early days at New York University, when he spoofed the controversial "Birth of a Nation," to his early films, "She's Gotta Have It" and "Do the Right Thing,"

through his work as a mainstream director ("25th Hour," "Malcolm X," "Inside Man" and "4 Little Girls"), the career and filmography of Spike Lee will be examined.

## CINE2011

3 Credits

### **Films of Coen Brothers**

The Coen brothers have written, directed and produced films that speak to their independence and to a unique view of the world. Their films can be serious ("Fargo"), but always have more than a trace of humor ("Raising Arizona"), while also displaying an understanding of history and social change. Whether it's Hollywood ("Barton Fink") or the modern southwest ("No Country for Old Men"), the Coens have made films that are creative and impactful. Other films to be considered may include "Blood Simple," "Miller's Crossing," "Hudsucker Proxy," "The Big Lebowski," "O Brother Where Art Thou" and "A Serious Man."

## CINE2015

3 Credits

### **Italian Cinema**

The course will discuss the development of the Italian cinema from Neo-Realism to today, in particular dealing with Rossellini, Fellini, DeSica, Bertolucci, Pasolini, Antonioni and Wertmueller. It is taught in English. (Equivalent to ITAL2005 Italian Cinema.)

## CINE2205

3 Credits

### **Blondes and Bombshells**

This course will introduce students to themes in film studies, with a look at how American, Italian and other internationally produced films portray images of women — as sexualized objects, as wives and homemakers and as entrepreneurs and self-realized individuals — and how these images and ideas have changed over time. Full screenings in class.

## CINE2207

3 Credits

### **East Asian Cinema**

Over the past 25 years, the films of China, Japan and Korea have become staples of art-film houses and international film festivals. Additionally, low-cost electronic media, global distribution networks and the interests of widespread, diasporic communities have made these films available to homes in the United States. This course examines the narrative concerns and structures and the visual styles of East Asian films with regard to their cultures of creation and reception. Featured directors might include Wong Kar-Wai, Hou Hsiao-Hsien, Jia Zhangke, Yasujiro Ozu, Akira Kurosawa, Im Sang-soo, Kim Ki-duk and Hong Sang-soo.

## CINE2350

3 Credits

### **The American Film Director**

A look at how developments in film language and changes in society formed the basis of a truly American cinema, not always helmed by Americans. Examples will be taken from: D.W. Griffith, F.W. Murnau (American films), Ernst Lubitsch, Billy Wilder, Howard Hawks, John Ford, Frank Capra, William Wyler, Orson Welles, Roman Polanski, Francis Ford Coppola, Martin Ritt, Sam Peckinpah, Clint Eastwood, Woody Allen, Martin Scorsese, Steven Spielberg, Spike Lee, John Singleton, Quentin Tarantino and Wes Anderson, among others.

## CINE2355

3 Credits

### **American Film, American Scandal**

Many events in American history have been the basis or inspiration of great American films. The politics, history and social forces that created these films, the accuracy of how the issues and events are portrayed and how people regard the issues as time passes, will be the focus of this course. Examples will be taken from: Civil War and Reconstruction, journalism, the end of the frontier, corruption in our cities, war and its aftermath, women and power, modernity and loneliness and the African-American experience.

## CINE2371

3 Credits

### **History on Film: Britain**

Many events in British history have been the basis or inspiration of great films. The politics, history and social forces that created these films; the accuracy of how the issues and events are portrayed; and how we regard the issues as time passes, will be the focus of this course. Examples will be taken from: the Church of England, British Colonialism, World Wars and the loss of Empire, War on the British Homeland, immigration, assimilation and the effects of Brexit. (Equivalent to HIST2371 History on Film: Britain.)

## CINE2404

3 Credits

### **Films of Alfred Hitchcock**

Study, analysis and dissection of the many creative and technical ways Alfred Hitchcock "punctures" and titillates people's emotions and imagination through his major works, such as "Psycho," "The Birds," "North by Northwest," "Rear Window" and other important films by the master of suspense. (Full Screenings)

## CINE2405

3 Credits

### **American Film Comedy**

Screening and analyzing the numerous forms of film comedies in America and the many stars and comic teams that bring unmitigated laughs and enjoyment: Mel Brooks, Marx Brothers,



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John Belushi, Dan Aykroyd, Abbott and Costello, W.C. Fields and many other laughables. (Full Screenings)

## CINE2406

3 Credits

### Clint Eastwood — The Total Artist

To examine, study and analyze, through lectures, discussion, full-length features and clips, a broad range of Clint Eastwood's artistic directorial and producing capabilities in the motion-picture medium. Films to be screened include "The Unforgiven"; "Heartbreak Ridge"; "Pale Rider"; "The Good, the Bad and the Ugly"; "Play Misty for Me"; "Dirty Harry"; "The Bridges of Madison County"; "Bird"; "Escape from Alcatraz"; "Sudden Impact"; and "Mystic River."

## CINE2407

3 Credits

### Experimental/Surreal Cinema

A critical look at films that have influenced the mainstream by staying on the fringe. Artistic and dreamlike, they bring us into a world of their own. Commentaries will focus on different directors and styles of film. Screenings will include films by Tim Burton, Luis Bunwell, David Lynch, Terry Gilliam, Maya Deren, Stanley Kubrick, Dario Argento, Andy Warhol, David Cronenberg, Ingmar Bergman, Werner Herzog, F.W. Murnau, Samuel Fuller, and Jean-Luc Godard.

## CINE2408

3 Credits

### The Films of Woody Allen

Explores the cinematic style and many themes of this quintessential New York filmmaker. Screenings and discussions will include "Annie Hall," "Hannah and Her Sisters," "Sleeper," "Love and Death" and "Manhattan," among others.

## CINE2515

3 Credits

### Spanish Film

This course surveys Spanish films. Students analyze how cinema represents Spanish history and culture. They also examine how Spanish films have moved from local and national themes to include more global topics for an international audience. (Equivalent to SPAN2515 Spanish Film.)

## CINE2520

3 Credits

### Growing Up on Film

The class will look at coming-of-age films about youths in their teens and early 20s. Looking at films from different countries, cultures and eras will show the consistencies and changes in the process of youths transitioning into adulthood as well as the medium's view of youth in popular culture. Films may include "American Graffiti," "400 Blows," "The Graduate," "Juno," "Boyz n the Hood," etc.

## CINE2522

3 Credits

### From Comic Book to Big Screen

The course will read, screen and analyze the history of films based on comic books, graphic novels and other pop culture icons and how these stories often serve as a modern mythology. The historical, sociological, psychological and cinematic aspects of this cultural phenomenon will be examined. Screenings will be accompanied by scholarly readings.

## CINE2524

3 Credits

### African-American Cinema

African-American filmmakers have long been active, in front of and behind the camera, contributing to American culture and history, even if finding resistance within the American film industry. Long before Spike Lee and John Singleton came Oscar Micheaux and Paul Robeson. This course will consider the work of more modern, but still less well-known filmmakers such as Melvin Van Peebles (father of "New York City's" Mario Van Peebles) and Charles Burnett, as well as Gordon Parks, Richard Roundtree and the many who came before them.

## CINE2530

3 Credits

### Latin American Film

This course is designed to introduce students to Latin-American culture through film media. It focuses on the study of 10 films from most countries in Latin America. First analyzed from a general perspective, each film provides a different aspect of the culture of the Spanish-speaking world. (Equivalent to SPAN2530 Latin American Film.)

## CINE3010

3 Credits

### Film Noir: The Dark Side of Cinema

This class will examine the beginnings of film noir as B films during World War II. The course will also examine how the genre got its name as well as various theories and concepts about the meaning of film noir and what it has come to mean. Students will view and discuss a retrospective of noir classics and neo-noir films, with particular attention to styles and scripts.

## CINE3011

3 Credits

### Film Noir: Mystery Films 1940s-50s

This class will take a critical look at the classic American mystery films referred to as film noir by looking at how these films were made, by whom and why they were so successful with the studios and audiences alike. Students will also learn about the Hollywood studio film factory system, the B movies, the Hollywood Production Code and the art of the hard-boiled mystery.

## CINE3012

3 Credits

### Films of Steven Soderbergh

A modern-day influence on films, Steven Soderbergh came out of the "independent" film movement with "Sex, Lies and Videotape" and then made several failures which jeopardized his career. He emerged as the director of "Erin Brockovich," "Ocean's Eleven" (and others in the franchise), "Traffic," among several other projects that challenged the boundaries of narrative film; "Bubble," "Che" and "The Girlfriend Experience." Full screenings and consideration of Soderbergh's biographical influences will be considered in this course.

## CINE3014

3 Credits

### Movies, TV and Rock n Roll

In the years after World War II, the growth of entertainment outlets provided a means by which American cultural and economic values were constructed and reflected across our culture. Ideas of "rugged individualism," our connections with religion and our attitudes toward gender roles are reflected in film. This course will examine these major themes and look at how values considered to be American are expressed and subverted in films, television and popular music.

## CINE3015

3 Credits

### Japanese Culture Through Film

Study of Japanese culture through selected films. It highlights pivotal moments in Japanese history captured in Japanese movies. (Equivalent to JAPN3015 Japanese Culture Through Film.)

## CINE3056

3 Credits

### Italy: Land of Migrations

In the last two centuries, Italy has been the source of a large migration outward and in recent years the destination for a large migration forward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. Taught in English. (Equivalent to ITAL3056 Land of Migrations and LITS3056 Italy: Land of Migrations.)

## CINE3215

3 Credits

### Introduction to World Cinema

Survey of films from various countries with a focus on how different ways of seeing and thinking about the world are manifested through narratives, styles and cinematic elements.

## CINE3335

3 Credits

### The American Film

A detailed study of cinematic trends and expression through the works of major American film directors.

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## CINE3345

3 Credits

### Films of Steven Spielberg

Screening, analyzing and dissecting the major films of one of Hollywood's greatest directors, Steven Spielberg, the course will study how Spielberg produces, directs and communicates through his works on a historical, psychological and cinematic level. (Full screenings.)

## CINE3350

3 Credits

### Twentieth-century Cinema

The history of film from the earliest attempts to visually reproduce motion to the sophistication of today's motion picture production, through the discussion and screening of films by D.W. Griffith, Alfred Hitchcock, Cecil B. DeMille, Frank Coppola and international artists and their films. (Film clips and full screenings.)

## CINE4801

3 Credits

### Horror and Science Fiction Movies

Screening and analyzing the historical, sociological, psychological and cinematic aspects of the greatest horror and sci-fi movies of all times, these fun-filled "thrill" films will be observed from a "serious" vantage point, from the classics to cult. (Full Screenings)

# Communication Studies

## Department of Communication Studies

## COMM1001

3 Credits

### Communication in Everyday Life

This introductory course will provide students with a foundation in communication concepts, theory and research, while helping them begin to master practical communication skills, such as listening and critical thinking, using technology to communicate, understanding nonverbal communication, creating persuasive strategies and managing group conflict. Topics will include self-development, interpersonal communication, family communication, group communication, public speaking, media/technology and communicating in the workplace and in public.

## COMM1105

3 Credits

### Intercultural Communication

The course focuses on cultures and subcultures as well as their impact on perception, communication and behavior. It explores similarities and differences between cultures and barriers to intercultural communication. It also examines principles of and skills in effective communicating and intercultural settings.

## COMM2000

1 Credit

### Experiential Learning in Communication

This course is for communication studies majors in good standing who wish to do an internship prior to the beginning of their junior year. This course is a first step in developing a professional persona and skills in applying communication concepts. Students must have an approved internship prior to beginning the course.

## COMM2001

3 Credits

### Perspectives on Communication Studies

What is communication? This is the question that drives this course. The question is deceptively simple since one can probably provide an answer with little difficulty. Answers to the question, "What is communication?" have been dominated by a very particular tradition of Northern American scholarship since the early part of the 20th century. The structure of the course reflects the fact that there are two main schools in the study of communication. The first sees communication as the *transmission of messages*. It is concerned with how senders and receivers encode and decode and sees communication as a process by which one person affects the behavior or the state of mind of another. The second school sees communication as the *production and exchange of meanings*. It is concerned with how people interact with messages or texts in order to produce meanings and examines the roles of texts in our culture. This course will examine both areas of communication study.

## COMM2002

3 Credits

### Small Group Communication

The main purpose of this course is to help students become better communicators in the context of a small group. The objective is to give students both a broad understanding of group communication processes and practical advice to help them become more effective small-group participants. The course will primarily deal with task-oriented small groups — groups with a specific objective to achieve, information to share, a problem to solve or a decision to make.

## COMM2003

3 Credits

### Interpersonal Communication

This course examines processes, practices and problems of communication between persons through various modes of interaction (talk, text and media). Topics explored include: formation of the self and impression management; relational development, performance and maintenance; and forms and functions of communicating interpersonally among friends, in families and at work.

## COMM2004

3 Credits

### Public Relations Principles

This course explores the field of professional public relations covering the role, origin and trends affecting the future of the practice. Additionally, the course will cover topics such as effective writing skills, campaign development and ethical and legal implications of the profession.

## COMM2005

3 Credits

### Narrative Communication in Media and Everyday Life

This course examines a variety of forms that narrative communication takes (story, myth, fairy tale, report, eyewitness account and rumor) in different media (conversation, radio, film, literature, internet forums, news and entertainment television) and explores the many functions narrative communication serves in people's professional and personal lives.

## COMM2006

3 Credits

### Nonverbal Communication

This course is designed to enhance student awareness of how nonverbal cues are used in sending and receiving messages and in enacting culture. The course provides an in-depth study of physical appearance, gesture and movement, facial expression, eye contact, touch, use of time and the voice to communicate nonverbally in a variety of interpersonal relationships across personal, professional, public and cultural contexts. Students will be sensitized to how postural, gestural, vocal, facial and spatial behaviors combine with each other and with talk in conducting socially and culturally meaningful interaction.

## COMM2011

3 Credits

### Introduction to Journalism

A survey course in the history of journalism in America; emphasis on development of principles of modern journalistic practice, including broadcasting. Prerequisite: ENG1001 Composition I: Rhetoric and Inquiry.

## COMM2099

3 Credits

### Professional Communications

A writing and oral communication course which emphasizes the importance of collaborative communication techniques used in the workplace. The course features an extended simulation that integrates work-related written and oral communication through practical application. The simulation allows students to gain experience similar to that of the workplace. The course also concentrates on business writing, including letters, memos, reports and proposals; oral presentation; listening skills; and group dynamics. Prerequisite: ENG1001 Composition I: Rhetoric and Inquiry.

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## COMM2210

3 Credits

### Popular Culture and the Media

This course provides an introduction to the critical issues and approaches used in the study of current and recent American popular culture. Popular culture is all around us — influencing how we think, how we feel, how we vote, how we live our lives in countless ways. Students will look primarily at television, film, advertising, fashion, popular music and computer cyberculture, with occasional forays into other types of pop culture. Students will analyze how such critical factors as ethnicity, race, gender, class, age, religion and sexuality are shaped and reshaped by popular culture.

## COMM2214

3 Credits

### Introduction to Broadcasting

This course provides an introduction to the principles and practices of the broadcasting industry. While the focus will be on radio broadcasting, many of the discussions will have application to the television industry as well, particularly when it comes to legal issues. The course will include training and practice in radio productions. Students also will receive an introduction to radio programming (both commercial and noncommercial), production, broadcast-station policies, legal issues and industry trends.

*Fee*

## COMM2221

3 Credits

### Advertising Principles

This course is designed for people who have not had much prior experience in advertising and as such, the primary objective is to improve their skills for advertising. In particular, students will be working on the *creative* and *persuasive* aspects of advertising. Although time will be spent discussing, planning and budgeting for advertising campaigns, the bulk of the time will be spent learning the elements that go into the creation, development and production of advertisements.

## COMM2260

3 Credits

### Cross-cultural Communication

This course explores cross-cultural communication both in general discourse and a few specialist fields, giving special attention to texts examined from an intercultural perspective. The importance of the use of English as a lingua franca is also taken into consideration as well as its influence on the linguistic and external realizations at an international level. The course will be offered at the Università di Bergamo in Bergamo, Italy.

## COMM2851

3 Credits

### Visual Journalism

In the 21st century, journalism will continue to include a strong visual component but photogra-

phers can no longer take images of current events and simply submit them to editors.

Today, visual journalists are also expected to be able to write captions and short stories to accompany the visuals. In this course students will learn to recognize newsworthy images, become proficient (using a single-lens reflex digital camera) in taking digital images, developing, processing and transmitting these images for both print and electronic media. Students will also work on captions and short stories to accompany these images.

## COMM2866

3 Credits

### Women and Minorities in Media

With an emphasis on print and electronic journalism, an examination of the history, role and impact of women and minorities in the American media; analysis of traditional minority-media outlets and their audiences; the transition to participation in the major media marketplace of ideas; contemporary issues of race, ethnicity and sex and how they are reported. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

## COMM2900

3 Credits

### Self-presentation for Employment

The course applies principles of interpersonal communication and organizational communication to the employment process. Course work includes self-assessment and industry research, preparation of targeted résumés and cover letters and preparation for the employment interview through the study and practice of interview structure and content. Needs NetID (formerly Webmail) account.

## COMM3001

3 Credits

### Marketing Communications

This course is designed to provide students with an understanding of how the major types of marketing communication messages are created and delivered. Students will develop an understanding of how advertising, sales promotion, publicity/public relations, personal selling and direct marketing are planned and synthesized to form an integrated marketing communications (IMC) program. Students will develop a theoretical basis and strategic understanding of how to build and manage the marketing communications that impact customer relationships and brands, and an understanding and appreciation for the IMC concept and process through hands-on experience in analyzing and making recommendations for real company situations.

## COMM3004

3 Credits

### Organizational Communication

This course examines the foundations, as well as the challenges and misunderstandings within public and private organizations. It focuses on

the concepts and applications of the nature of work, motivation to work, roles and interactions, leadership and management, power and influence, working in groups and cultures of organizations. Organizations in a global context are explored.

## COMM3005

3 Credits

### Social Media, Communication and Community

With the advent of virtual communities, online social networks and the rapidly advancing use of social media, the question of effective communications can be addressed through multiple lenses. Drawing upon the theoretical literature from various disciplines, this course will enable students to understand what constitutes social media and its associated technology and its impact on communications within groups, organizations and society in general. Students will be expected to actively engage in several forms of social media. In addition, students will be introduced to the concept and practice of social network analysis and its role in measuring communication flows within organizations and groups.

## COMM3012

3 Credits

### Newswriting

Practical instruction in newswriting, feature writing and reporting and interviewing for newspapers. How to cover and write about meetings, speeches, crime, the courts and business. Standard news style and ethical and legal limitations of the press. Prerequisite: ENGW1002 Composition II: Research and Argument.

## COMM3013

3 Credits

### Feature Writing

The art and practice of writing for a variety of media. Consideration of the variety of techniques and structures, from narrative writing to human-interest profiles, opinion pieces and criticism. Emphasis in the story-pitch process, interview techniques, writing and editing. Prerequisite: ENGW1002 Composition II: Research and Argument.

## COMM3014

3 Credits

### Family Communication

This course examines family relationships, roles, structures, crisis-management strategies, myths and dynamics from a communication systems perspective. Family interaction as foundational to lifelong experience is a central consideration of the course. Historical, economic, social and legal issues relating to the family are explored.

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## COMM3015

3 Credits

### Political Reporting: Journalism in an Election Year

This course will give students the opportunity to write news articles and analyses about the race for the U.S. presidency. Students will work on breaking news and longer-form pieces, all while examining the political process. Students also will review and critique the work of national media outlets, especially once the election is over. Articles will be submitted to *The Pillar* student newspaper for publication.

## COMM3016

3 Credits

### News Editing

Practical instruction in editing copy and writing headlines for newspapers. Also covers standard-news style, newsroom routine, newsroom technology, wire services, photo editing, typography, page makeup and design and ethical and legal limitations on the press. Prerequisite: ENGW1002 Composition II: Research and Argument.

## COMM3018

3 Credits

### Mass Communication

This class will provide a forum for examining the media of mass communication. It will take a closer look at both the history and contemporary trends in the newspaper, book, magazine, radio, film and television industries, and then bring the discussion to present day by taking a closer look at computer media and the internet. Using media literacy as a central theme, the course will also discuss media ethics and other social issues related to mass media. Prerequisite: COMM2001 Perspectives on Communication Studies.

Fall

## COMM3019

3 Credits

### Global Communication

This course surveys a broad range of communication issues related to the area of globalization. The course explores international, intercultural and multicultural communication; diversity issues related to gender, race and ethnicity; post-modernism; the role of technology; and the impact of the "global village" on the nature of work. Time will also be spent exploring how globalization has led to compressions of time and space and significant changes in social relationships. Prerequisite: COMM2001 Perspectives on Communication Studies.

## COMM3020

3 Credits

### Art and Theory of Film

A course in the aesthetics and theory of film, with a focus on writing critically about movies. Covers such major elements of film art as montage, composition, cinematography, lighting,

sound, music and special effects. Major critical movements covered include semiotics, myth criticism, feminist criticism, auteur theory and genre criticism. The work of one or two theorists will be explored in depth.

Fee

## COMM3022

3 Credits

### Communication Research

The primary goals/objectives of this course are to introduce students to the concepts, approaches and tools for gathering and analyzing information in research related to communication and, generally, to make students better consumers of the research they are exposed to in their everyday lives. By the end of the semester, students will be acquainted with the terminology and concepts of social science research as they are used in the field of communication studies, and be able to do the following: use library and internet sources to gather information; develop a research question, hypothesis and accompanying review of the relevant literature; and have a working understanding of the range of methodologies available to communication researchers. Prerequisite: COMM2001 Perspectives on Communication Studies.

## COMM3023

3 Credits

### Film and Culture

A course in the way film reflects and influences culture. Focus on a historical or cultural theme represented in film; background reading in appropriate cultural texts and documents. Topics vary from semester to semester, such as politics and community in American film; American individualism and the West; the crime film and American values; America and the psychology of war. Film screenings held in addition to class time.

## COMM3027

3 Credits

### Language and Social Interaction

Introduces students to the research and methods of scholars doing work in the area of communication studies known as language and social interaction. The objective of this course is to develop a working knowledge of language and social-interaction studies to raise awareness of how language is used and what it is used to do and to foster an understanding of how language and social-interaction function in people's everyday lives. Prerequisite: COMM2001 Perspectives on Communication Studies.

## COMM3030

3 Credits

### Events Planning

Event planning is an important component of marketing and public relations. Events have the power to build consumer awareness and create a connection to a company or brand that other channels cannot match. From product launches

to fundraising galas, effective events can help brands and organizations achieve measurable business goals. But event planning is more than just throwing a good party. Each production takes months of planning and strategy. In this course, students will learn how to create successful events from conception to completion. They will develop essential materials for their events, including invitations, advertisements, calendar listings and media alerts to create awareness; create and manage an event budget; and think creatively to build strategic collaborations. Prerequisite: COMM2004 Public Relations Principles.

## COMM3035

3 Credits

### Public Relations Writing

This course will provide students with a repertoire of writing skills and techniques for use in the public relations field. Particular emphasis will be placed on writing for the media, for crisis communication and for promotion and publicity. Prerequisite: COMM2004 Public Relations Principles.

Spring

## COMM3050

3 Credits

### Communication Theory

This course offers a broad explanation and appreciation of communication theory and its centrality to everyday life. It explores the process of theory construction in modern communication studies through a multidisciplinary survey of many of the theories that have historical and contemporary value to communication scholars.

## COMM3051

3 Credits

### Communication and Gender

Starting with a more general exploration of gender and communication, and moving into media, education and workplace-specific applications, this course seeks to blend extensive reading and personal reflection into a solid understanding of what "gender" means in today's society and the implications that this understanding has for communication in people's personal and professional lives.

## COMM3060

3 Credits

### Television News

The key areas that go into the creation, production and distribution of television news; how daily television news is researched, written and produced; the differences between network and local news, between local and 24-hour news and between morning and evening network news broadcasts. Examination of the ethical, racial and gender issues in production and reception of news. Exercises in writing copy and laying out the elements of a 30-minute broadcast, while also exploring the inner workings and politics of a career in television news.

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## COMM5225

3 Credits

### Mass Communication Law

Provides practical knowledge of the basic laws and regulations governing anyone involved with mass communication products or industries. Students will examine the federal and state regulation of print, broadcasting and new media in the United States. It will also focus on legal mandates and the constraints that have shaped the role of the media in society, especially the First Amendment. The course covers several areas, including libel, hate speech, obscenity, news gathering, advertising and broadcasting regulations. It also explores processes of deregulation and its implications for freedom of speech in the United States.

## COMM5245

3 Credits

### Advanced Advertising and Promotions

Building on COMM2221 Advertising Principles, this course focuses on basic principles of account planning, good account management and relationships within agencies and between agencies, clients and consumers; principles of media buying; planning and budgeting for advertising campaigns. Emphasis is on creating more sophisticated advertising and promotional campaigns and polishing the communication skills that are such a vital part of account management. Prerequisite: COMM2221 Advertising Principles.

## COMM5244

3 Credits

### Public Relations Campaigns

This course provides students with an accelerated opportunity to enhance essential practitioner skills through engagement in a hypothetical campaign based on skeletal scenarios. Students engage in the entire problem-solving process, including research and planning, as teams, while refining their critical thinking and writing skills. Prerequisite: COMM2004 Public Relations Principles.

## COMM5248

3 Credits

### Writing for Broadcast and Podcast

This course will prepare students to write for the electronic news media. In addition to developing the skills necessary for writing good radio and television news copy and promotional/commercial copy, students will also discuss current issues (ethics, legal issues and history) as well as current events in broadcast journalism. Writing projects will be completed, both individually and in teams, and sample assignments may include radio and television commercials, broadcast news copy, broadcast interviews, public service announcements and dramatic pieces.

## COMM5311

3 Credits

### Communication and Customer Service

This course will focus on the role of communication in customer service and the practices that “best in class” companies apply to differentiate themselves from the competition. The course includes a grounding in communication theory as well as practical information and activities designed to teach students not only how to respond to customers, resolve problems and provide quality customer service, but also how to manage and motivate a staff of customer-service employees as well.

## COMM5341

3 Credits

### Radio Management

This course will deal with radio-management functions and operations. In addition to exercises that will enable students to more closely examine trends in the world of radio, radio programming and station development, students will enhance their hands-on skills as well. Students will develop a working knowledge of the operation of radio stations including the audience rating methods that impact their programming design.

## COMM5349

3 Credits

### Introduction to Television

This introductory course will examine the language and narrative structure of television and cover such practical areas as videography, cinematography and editing. Time will also be spent reviewing the history of television and addressing special topics such as music television, animation, commercials and reality programming.

## COMM5451

3 Credits

### Sports Information Writing

Examination of and practical exercises in sports information writing, gathering news and writing basic sports stories and press releases, designing and writing brochures and other publicity material, interviewing, information sources and outlets and setting up and operating “gameday” activities. Prerequisites: COMM2001 Perspectives on Communication Studies and ENG1002 Composition II: Research and Argument.

## COMM5452

3 Credits

### Sports Journalism

This course provides practical training for students interested in a career in sports journalism — from the basics of game coverage to interviews, profiles, columns, investigative stories, analysis and commentaries. Students will work toward an understanding of how to report and write about such topics as the business of sports

and gender and racial issues in sports. Students will cover events and practice writing on deadline, study the differences in reporting for print, online and broadcast and learn how to inject interpretation and color into their coverage without losing professionalism. Prerequisite: ENG1001 Composition I: Rhetoric and Inquiry or its equivalent.

## COMM5453

3 Credits

### Communication in Science Fiction Literature and Film

Examination of the forms and roles of communication in the possible worlds imagined by science-fiction writers; exploration of such issues as relationship development, alien communication, human-machine interaction, communication and institutions; provides grounding in communication theory to make sense of current communication phenomena.

## COMM5457

3 Credits

### Talk at Work

Explores how communication constitutes the work that people do in a variety of professional contexts, including medical care, emergency service, legal interrogation, broadcasting, public hearing and political press conferences. Students will study talk in these contexts to discern how it is organized to accomplish certain tasks.

## COMM5838

3 Credits

### Media Ethics

Ethics in both the print and broadcast media, using current newspaper articles and news programming as resources. Students participate in the decision-making process of reviewing and selecting information for mass audiences. Emphasis on class discussions.

## COMM4001

3 Credits

### Communication Internship I

Practical experience in communication in a professional setting.

## COMM4002

3 Credits

### Communication Internship II

Advanced practical experience in communication in a professional setting. Prerequisite: COMM4001 Communication Internship I.

## COMM4005

1 Credit

### Advanced Practicum in Communication

This course is for communication studies majors in good standing who have taken COMM4001 Communication Internship I and COMM4002 Communication Internship II and wish to do an additional internship. Students must have an ap-

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proved internship prior to beginning the course. Prerequisite: COMM4002 Communication Internship II. Note: must have instructor approval to register.

## COMM4005

3 Credits

### Literary and Communication Theory

This course considers the contribution and impact of literary theory within contemporary communication studies. The course examines perspectives such as semiotics, hermeneutics, phenomenology, structuralism and post-structuralism and explores what literary theory contributes to the understanding of human communication processes. Prerequisite: COMM2001 Perspectives on Communication Studies. Open to seniors only.

## COMM4006

3 Credits

### Advanced Literary and Communication Theory

This course builds upon COMM4005 Literary and Communication Theory. Students consider advanced texts in semiotics, phenomenology, hermeneutics and critical theory and their relationship to contemporary communication problems and issues. Prerequisite: COMM4005 Literary and Communication Theory.

## COMM4070

3 Credits

### International Communication and Culture

This is a 12-day seminar course offered at Wroxton College, England, each summer. A key objective of the seminar is to make students familiar with the cultural, historical and political contexts in which international business transactions take place, from a United Kingdom and European perspective. Along with an understanding of the cultural context of communication, students are given a grounding in the theoretical context of communication study. Students will examine case studies conducted by United Kingdom practitioners, which show how issues of culture, history, politics and theory play out in actual corporate communication practice.

## COMM4444

3 Credits

### Multimedia Journalism

This course will attempt to keep up with the ever-changing media landscape. In addition to developing the skills needed to ensure students produce solid journalism, they also will learn how to apply multimedia techniques to tell stories in new and interesting ways. Throughout the semester, students will work on developing their own web pages, complete with original reporting, audio and video components, photography and blogs. Students will also study current events as well as ethical and legal issues in elec-

tronic media. Note: Students should complete at least one journalism course prior to taking this class.

## COMM4480

3 Credits

### Crisis Communication in a Public Relations Context

This course specifically examines the dynamic practice of crisis communication on the organizational level. It seems that the world lives in a culture of crisis — organizations must be proactive and reactive in their public relations practices. Topics discussed will include image-repair strategies, options available to organizations facing crisis, crisis-management teams, crisis management as a form of public relations and examination of case studies. Using the most recent scholarship, students will learn about this timely topic in an interactive and engaging environment. Prerequisite: COMM2004 Public Relations Principles.

## COMM4800

3 Credits

### Independent Study in Communication

Independent study under the direction of a specific faculty member after consultation with the department chairperson. Prerequisite: advanced standing in major.

## COMM4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

### Writing and Creative Writing

See pages 367–369.

# Computer Science

Department of Mathematics,  
Computer Science and Physics

## CSCI1145

3 Credits

### Computers and Computing

A first introduction to computer technology and applications for all disciplines. Topics include discussion of computer hardware and software, the societal impact of computers and computer applications in everyday life and business. The goal of this computer course is to foster skills development so that students have sufficient computer skills for use in college, at home and in the workplace for a technology-filled 21st century.

Fall, Spring

## CSCI1205

3 Credits

### Introduction to Computer Programming

An introduction to computer programming using the C# language with emphasis on good software engineering practice and basic computer-science concepts. Topics include algorithm design, top-down design, forms and controls, decision structures, loops, methods, arrays and lists. Prerequisite: placement in MATH1107 Precalculus.

Fall, Spring

## CSCI1500

3 Credits

### Programming in Visual BASIC

An introductory programming course designed to introduce the students to the logic, format and conventions of coding using graphics and database elements. The course covers object-oriented programming techniques and use of graphic components in designing application interfaces.

## CSCI2100

3 Credits

### Mobile App Development

In this course students will learn how to develop applications for mobile devices such as smartphones. Students will use the App Inventor application for the creation of Android applications. It is intended for students with no prior programming experience. Prerequisite: Completion of MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

## CSCI2215

3 Credits

### Introduction to Computer Science

Problem solving with data models, data structures and algorithms using C++. Exposure to areas of computer science such as complexity theory, computer architecture, software engineering, etc. Prerequisite: CSCI1205 Introduction to Computer Programming or equivalent.

Fall, Spring

## CSCI2216

3 Credits

### Introduction to Computer Science II

Advanced C++ programming constructs and features will be covered, including structured data, file operations, advanced objects and classes, exceptions and templates. Prerequisite: CSCI2215 Introduction to Computer Science.

## CSCI2233

3 Credits

### Data Structures and Algorithms

This course provides an introduction to data structures and algorithms, including their design, analysis and implementation. It will introduce algorithmic analysis tools to study the behavior of algorithms associated with various data structures including lists, sorted lists,

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stacks, queues, deques, trees, heaps and priority queues, hash tables, search trees, sorting, selection, graph algorithms and B-trees. Students will be introduced to algorithms' design techniques, including divide-and-conquer, greedy approach, backtracking and dynamic programming.

## CSCI2247

3 Credits

### Assembly Language Programming

Fundamentals of digital computer logic, symbolic assembly language programming, macros; introduction to the assembly process, compilation process and operating systems. Selected topics. Prerequisite: CSCI2215 Introduction to Computer Science.

Spring

## CSCI2255

3 Credits

### Discrete Structures

Set theory, algebraic structures, Boolean algebra and propositional logic, graph theory and other aspects of combinatorial mathematics. Prerequisite: MATH1107 Precalculus or MATH1205 Calculus I.

Fall

## CSCI3100

3 Credits

### Android Apps Development

This course introduces students to the design and implementation of Android applications for mobile devices (including smartphones and tablets). The course is an engaging, hands-on course and is designed to prepare student programmers to meet growing business demand for mobile apps. Students will develop apps from scratch and learn how to set up an Android Studio Development environment. They will work with various Android Activities, create user interfaces for their apps and program the logic behind their apps. This course blends theory and practice to enable students to build apps the right way and learn best practices of mobile development. This course is intended for students with at least one year of programming experience in an object-oriented programming language (ex. C++). Prerequisite: A grade of C or higher in CSCI2216 Introduction to Computer Science II.

## CSCI3157

3 Credits

### Cyber Security

Overview of computer security; foundations — access control matrix; policy — security policies, confidentiality policies, integrity policies, hybrid policies; implementation — information-hiding techniques — steganography, digital watermarking, cryptography, fingerprinting, key management, cipher techniques, authentication, access-control mechanisms, confinement problem, user and system security, data security, copyright, digital certificates and digital-rights

management. Prerequisites: CSCI2215 Introduction to Computer Science and MATH1205 Calculus I.

## CSCI3268

3 Credits

### Database Systems

Overview of the function and architecture of database systems. Study of storage structures and their implementation. Survey of the current types of data models. Examples of data definition and data manipulation languages. Specific database management systems will be studied to support the database concepts.

## CSCI3269

3 Credits

### Introduction to Data Mining

This course introduces the fundamental concepts of data mining. Students will gain an in-depth understanding of algorithms in the field, and will learn how to prepare data for learning and classification. Topics covered include data preprocessing, classification, cluster and outlier analysis and text mining. Students will work on projects for developing classification systems. Prerequisite: CSCI2233 Data Structure and Algorithms, CSCI3333 Computer Algorithms, MATH3300 Statistics I or permission of department chair.

## CSCI3270

3 Credits

### Introduction to Machine Learning

This course introduces the fundamental concepts of machine learning. Topics covered include support-vector machines, kernel methods, boosting, online learning, multiclass learning, ranking, regression and reinforcement learning. Students will work on projects implementing algorithms discussed in class. Prerequisites: CSCI3333 Computer Algorithms, MATH3220 Linear Algebra and MATH3303 Probability and Statistics.

## CSCI3278

3 Credits

### Operating Systems

Organization and architecture of computer systems. Introduction to operating systems principles. Interrelationships between operating systems and computer systems architecture. Prerequisites: CSCI2215 Introduction to Computer Science and CSCI2255 Discrete Structures.

Fall

## CSCI3294

3 Credits

### Data Analysis and Visualization

The course is designed to help students acquire the knowledge and skills needed to analyze information and, more importantly, draw conclusions from their analysis. Students will be introduced to a variety of software tools used to

formulate models and visualize data. This course will be offered in a problem-based environment where students will learn that by presenting data visually it is possible to uncover surprising patterns and observations that would not be apparent from looking at simple statistics alone. Prerequisite: MATH1128 Mathematical Methods or its equivalent.

## CSCI3304

3 Credits

### Computer Organization

Fundamentals of logic design and organization and structuring of major hardware components of computers. The mechanics of information transfer and control in a digital computer system. Prerequisite: CSCI2215 Introduction to Computer Science.

Spring

## CSCI3305

3 Credits

### Combinatorics

Arrangements, selections and distributions. Generating functions, partitions and recurrence relations. Inclusion-exclusion principle. Graph models and isomorphisms. Planarity, Euler and Hamilton circuits. Graph coloring. Trees and graph algorithms. Applications particularly to computer science. Prerequisite: CSCI2255 Discrete Structures or MATH2255 Discrete Structures.

## CSCI3306

3 Credits

### Organization of Programming Languages

The organization of existing programming languages and the run-time behavior of programs. Introduction to the formal study of program language specification and analysis.

## CSCI3307

3 Credits

### Object-oriented Programming

An introduction to object orientation as a fundamental problem-solving and design concept. Programming and problem solving using the "top-down" approach with object abstraction. The course is taught using Java. Prerequisite: CSCI2233 Data Structures and Algorithms.

## CSCI3308

3 Credits

### Translation of Computer Languages

An introduction to compiler construction. Topics include scanning, parsing, semantics and code generation, with emphasis on simple precedence and operator-precedence grammars. Prerequisites: CSCI2233 Data Structures and Algorithms and CSCI2247 Assembly Language Programming.

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## CSCI3309

3 Credits

### Numerical Analysis

Numerical solution of problems in analysis using the computer. Interpolation approximation, numerical integration and differentiation, solution of nonlinear equations and differential equations. Prerequisites: CSCI1205 Introduction to Computer Programming and MATH2202 Calculus II.

## CSCI3312

3 Credits

### Theory of Computing

Finite state deterministic and nondeterministic automata, pushdown, linear bounded and infinite automata, formal languages and computability. Prerequisite: CSCI2255 Discrete Structures.

## CSCI3315

3 Credits

### Software Design

An introduction to the principles of formal software design. Topics include software requirements generation, system specification, program-development techniques, programming-language issues, abstraction, information hiding, structured analysis, program documentation, testing, maintenance, reliability and security. The course will use a number of programming and writing projects and case studies to reinforce the concepts discussed. Prerequisite: CSCI2215 Introduction to Computer Science.

## CSCI3316

3 Credits

### Local Area Networks

Coverage of the concepts, issues and implementation of local area network hardware and software for PCs. The course includes in-depth coverage of and hands-on experience with one of the major local area network products. Prerequisites: CSCI1145 Computers and Computing and CSCI2215 Introduction to Computer Science.

## CSCI3324

3 Credits

### Computer Graphics

Study of the software, hardware and mathematical tools required for the presentation, manipulation and display of topological and two- and three-dimensional objects, and the application of these tools to specific problems.

## CSCI3330

3 Credits

### Database Management Systems

Introduction to the theory, design and implementation of database management systems. Relational, network and hierarchical models. Database processing. Role of the data administrator. Prerequisite: CSCI2253 Data Structures and Algorithms or equivalent.

## CSCI3333

3 Credits

### Computer Algorithms

Introduction to the study of algorithms. Topics include complexity analysis, practical algorithm development and common algorithm methods, including recursion, greedy algorithms, dynamic programming, backtracking and branch-and-bound. The course will include programming assignments implementing the algorithms discussed in class. Prerequisite: CSCI2215 Introduction to Computer Science.

## CSCI3335

3 Credits

### Nonnumerical Computing

An introduction to list processing and other nonnumerical techniques using the LISP programming language. Prerequisite: CSCI2253 Data Structures and Algorithms.

## CSCI3344

3 Credits

### Algorithms in Bioinformatics

This course covers topics in string algorithms, sequence alignment, dynamic programming, phylogeny, gene expression analysis, clustering algorithms and sequence patterns and classifiers. Laboratory will include programming and the use of online databases and search engines.

## CSCI3355

3 Credits

### Introduction to Cryptography

Classical and modern cryptography, cipher techniques, transposition ciphers, substitution ciphers, vigenere cipher, data-encryption standard, other classical ciphers, public key cryptography, RSA, stream and block ciphers, key management — session and interchange keys, key exchange, digital signatures, networks and cryptography, protocols — secure electronic mail, security and network layer. Prerequisite: CSCI2255 Discrete Structures or MATH2255 Discrete Structures.

## CSCI3371

3 Credits

### Modeling and Simulation

Definition of systems. Input, output and state variables. Continuous and discrete dynamical systems. Differential equations and their use in modeling. The CSMP language and its use. Prerequisite: MATH2202 Calculus II.

## CSCI3388

3 Credits

### Introduction to Game Programming Using C++

Introduces students to game-programming techniques, how to use a game library, programming input devices, 3D-game programming theory and design and bitmap handling through programming. Prerequisite: CSCI2215 Introduction to Computer Science.

## CSCI3389

3 Credits

### Introduction to Human-Computer Interaction

Human-computer interaction integrates the fields of computer science, cognitive psychology, arts and design. This course is an introduction to the principles of human-computer interaction, user-interface design and usability analysis of systems. Students will learn about the user-experience process lifecycle, contextual inquiry, contextual analysis, design thinking, ideation, sketching, design production, low- and high-fidelity prototyping, empirical evaluation and feedback and affordances. Students will apply these principles in weekly activities, assignments and a final project.

## CSCI3390

3 Credits

### Virtual Reality

Virtual reality (VR) is a display technology that provides immersive and interactive experiences. In this course, students will learn about virtual reality, augmented reality, stereoscopic rendering, VR input/output devices, 3D interaction techniques, scene fidelity, spatial tracking, presence, human factors in VR and applications of virtual reality. Students will work on developing their own virtual environments to provide interactive experiences. Prerequisite: CSCI3388 Introduction to Game Programming Using C++.

## CSCI3431

3 Credits

### Expert Systems and Logic Programming

Fundamentals of expert systems, applications and development techniques for representing knowledge using logic with the prolog programming language. Prerequisites: CSCI1205 Introduction to Computer Programming and CSCI2255 Discrete Structures.  
*Spring*

## CSCI3666

3 Credits

### Data Communications and Computer Networks

Data communications, communication hardware technologies, local area and long-haul networks, circuit and packet switching, computer and network hardware interface, network architecture protocol, transport protocols, network layering architecture, performance issues, reliable delivery over unpredictable channels, virtual circuits, client and server model, address resolution, routing algorithms, congestion control and TCP/IP. Need NetID (formerly Webmail) account. Prerequisite: CSCI2215 Introduction to Computer Science.



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**CSCI3869****3 Credits****Network Security**

Coverage of potential threats to networks. Course includes strategies to harden system against these threats and discusses the liability of the network administrator for some crimes via the network. Class concludes with strategies for pursuit when system is compromised or data is altered, removed or copied. Prerequisite: CSCI3666 Data Communications and Computer Networks.

**CSCI3998****3 Credits****Artificial Intelligence**

An introduction to fundamental concepts and techniques of artificial intelligence. Topics covered include problem solving, knowledge representation, reasoning and searching. Students will learn the LISP (List Processing) programming language. Prerequisites: CSCI2215 Introduction to Computer Science and CSCI2255 Discrete Structures.

**CSCI4001, CSCI4002****1–3 Credits****Computer Science Internship**

Supervised practical experience in the field of computer science in a professional setting. Permission of the instructor and department chair.

*Fall, Spring, Summer***CSCI4391****1 Credit****Senior Project I**

The first phase of a senior project is to be completed under the direction of a faculty member. The project will generally involve the development of a software system, in which case the first phase involves development of requirements and design documents, project schedule and test plan. Alternatively, the project may take the form of a cooperative education experience.

*Fall***CSCI4392****2 Credits****Senior Project II**

The second phase of the senior project. This may involve coding, debugging and testing of the software system being developed or a continuation of the cooperative education experience. Prerequisite: CSCI4391 Senior Project I.

*Spring***CSCI4401****6 Credits (3 Credits Each Semester)****Selected Topics in Computer Science**

Advanced studies in special fields of computer science.

**CSCI4430****1–3 Credits Each Semester****Selected Studies in Computer Science**

Studies in the area of computer science.

**CSCI4477****1–3 Credits Each Semester****Honors Research and Thesis****CSCI4488****3 Credits****Advanced Game Programming Using C++**

A software engineering approach to game programming, building a game engine, debugging techniques, XML (Extensible Markup Language) and scripting. Need NetID (formerly Webmail) account. Prerequisite: CSCI3388 Introduction to Game Programming Using C++.

**CSCI4489****3 Credits****Design and Development of Video Games**

This class is project based, where game-development students and video-game animation students work in groups to design and develop their own video games. In order to gain interdisciplinary work experience, the teams will design and develop 2D and 3D games in order to understand the production cycle found in real-world game-creation projects. Prerequisites: CSCI3388 Introduction to Game Programming Using C++ and CSCI4488 Advanced Game Programming Using C++.

*Fee***CSCI4498****1–3 Credits****Co-op in Computer Science**

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job. University course work and career-development skills. Prerequisite: permission of director of co-op.

**CSCI4499****3 Credits****Co-op Computer Science**

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job. University course work and career-development skills. Prerequisite: permission of director of co-op.

**CSCI4800****1–3 Credits Each Semester****Independent Studies in Computer Science**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**CSCI4999****0 Credits****Computer Science Assessment**

This course is a level-assessment test for evaluating the breadth of knowledge in the major requirement and major elective courses. No class time is allocated for this course. The test is administered once every semester.

*Fall, Spring*

## Criminology

**Department of Social Sciences and History****CMLGY1201****3 Credits****Introduction to Sociology**

An introduction to sociology that explores society and culture, groups and organizations, socialization, deviance, social stratification, race and ethnicity, the family and education. (Equivalent to SOCI1201 Introduction to Sociology.)

**CMLGY1210****3 Credits****Introduction to Law**

Overview of substantive and procedural law and scholarly research on legal behavior and institutions. Course emphasizes the contemporary U.S. legal system, but includes discussion of comparative and historical issues. (Equivalent to GOVT1200 Introduction to Law.)

**CMLGY1306****3 Credits****Introduction to Crime and Criminology**

This course provides an understanding of crime and criminal justice. Students will examine theories of crime, individual and group criminal behavior and aspects of criminal justice systems from American and global perspectives. (Equivalent to SOCI2306 Crime and Criminology.)

**CMLGY2030****3 Credits****Supreme Court**

The Supreme Court of the United States has emerged as the most powerful tribunal in the world. It plays a major role in resolving conflicts, making policy and developing the rule of law. This class examines how history, theory, social science research, jurisprudence, public opinion and a range of social and political forces help us in understanding why and how the Court is a major force in American politics. (Equivalent to GOVT2030 The Supreme Court.)

**CMLGY2203****3 Credits****Research Methods in Criminology**

This course provides an introduction to the theories and methods underlying modern social sci-

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ence research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own research projects using a variety of qualitative and quantitative techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

## CMLGY2204

3 Credits

### Qualitative Research Methods

Provides students with practical research skills which will enhance their competitiveness in the job market. The course helps students design qualitative research projects using a variety of techniques such as interviews, ethnography, focus groups and content analysis. In class, students will develop research goals, observe data collection and practice conducting interviews and focus groups.

## CMLGY2300

3 Credits

### Wrongful Convictions

The course will examine the criminal justice system through the prism of cases in which an innocent person was convicted. It will examine the causes of proposed remedies for wrongful conviction and consider its implications for the criminal justice system as a whole. Topics will include mistaken eyewitness identification, forensic science, false confessions, prosecutorial misconduct, ineffective assistance, snitch testimony and the death penalty. The class will explore the current debate regarding the significance of the number of wrongfully convicted people who have recently been exonerated.

## CMLGY2301

3 Credits

### Correctional Setting Combined

This class creates a space for honest dialogue and real exchange between “inside” and “outside” students to generate new ideas and fresh solutions to problems related to crime and the administration of justice. Ten students from FDU will join a class at a prison institution with current inmates. This face-to-face experience challenges participants to re-evaluate cultural stereotypes, justice issues and to change the public opinion’s tone and attitude toward incarcerated individuals. Relevant articles and texts will explore fundamental issues of crime and justice such as what prisons are for, why people commit crime, a critical analysis of the criminal justice system, punishment versus rehabilitation, the myths and realities of prison life and issues of victims and victimization. Note: special permission required.

## CMLGY2307

3 Credits

### Deviance and Social Control

What is considered deviant behavior and how do certain behaviors become deviant in the eyes of society? This class will examine the social construction of deviance and the different theoretical perspectives that explain deviance. Certain forms of deviance will be examined critically, including drug use, sexual deviance and suicide. (Equivalent to SOC12307 Social Deviance.)

## CMLGY2317

3 Credits

### Probation and Parole: Theory and Practice

This course examines the history of probation and parole from past to present. Specifically, the class will look at the historical foundations of community-based corrections, the everyday operation of probation and parole and evaluations of the effectiveness of probation and parole.

## CMLGY2333

3 Credits

### Criminal Law

A basic introduction to criminal law in the United States. Emphasis is upon social factors, norms, values and social policy considerations that shape modern criminal law. Subject areas include issues such as the justification of punishment, the elements of just punishment and the death penalty as well as the study of substantive laws of homicide, rape and other criminal acts. Attention is also given to the emergence of international criminal law and the punishment of war crimes. (Equivalent to GOVT3220 Criminal Law.)

## CMLGY2360

3 Credits

### Victimology

This course provides an overview of the field of victimology. In this course, students will gain an understanding of the nature and extent of criminal victimization, the criminal justice system’s response to crime victims and the policy implications of victimization research. Course readings will encourage analysis of a discussion of the legal, social and political implications of criminal victimization.

## CMLGY2431

3 Credits

### Anthropology of Crime

This course examines murder, theft, corruption, genocide and sex trafficking from an anthropological perspective. Using cultural situations from around the globe, it investigates the complexities that generate and support crime, even while seeking to constrain and end it. Prerequisite: at least one previous course in social or behavioral sciences or criminal justice/criminology. (Equivalent to ANTH2431 Anthropology of Crime.)

## CMLGY2503

3 Credits

### Crime and Media

This course offers an examination of the role of the media in reporting crimes and the extent to which media coverage of crime and the criminal justice system impacts the commission of crimes and the operation of the system. It also will explore the impact media has on public perceptions of crime and society, criminals and the criminal justice system.

## CMLGY2509

3 Credits

### Serial Killers

This course will examine the phenomenon known as serial murder. While this type of murder is not new, the “serial killer” has become popularized in modern-day culture and in the media. In this class, students will distinguish fact from fiction. They will examine the causes of serial killing, which include various criminological and psychological theories, as well as the different types of serial murderers. They will also use various case studies to investigate the motivation of serial killers, as well as the response by the criminal justice system, which includes the investigation, prosecution and punishment of serial killers.

## CMLGY2701

3 Credits

### Penology

Penology is the study of punishment of criminal offenders. This class will examine justifications for punishment and the methods of punishment used in society. This course will also look at approaches to sentencing, the development of prisons and the evolution of corrections in the United States.

## CMLGY2702

3 Credits

### Penology from East to West

Penology is the study of the punishment of criminal offenders. This class will trace the development of the American penal system beginning with the colonial times through present day, often referred to by criminal justice experts as a time of “mass incarceration.” Students will learn about the competing goals of punishment and the unintended consequences of penal reforms. They will look at the development of prisons, the prison culture of both inmates and correctional officers, sentencing policies, probation, parole and prisoner-reentry movement. The class will also cover special topics including the punishment of drug offenders and sex offenders, particularly because these two groups have come to the forefront of penal policy. Students will consider a wide range of issues facing criminologists, criminal justice practitioners and policymakers. Some of these issues include the following: who goes to prison and why; are prisons a “breeding ground” for criminals; does probation work?; and how should society deal with sex offenders.

**CMLGY3005****3 Credits****Abnormal Psychology**

This class examines the long-standing and serious forms of mental disturbance, including character disorders, brain damage, retardation and psychotic processes; central focus on classification, dynamics, symptoms and treatment, with practical experience as a companion to mental patients.

**CMLGY3012****3 Credits****Crisis Intervention**

This class explores the theoretical and practical responses to traumatic events (e.g., crime, domestic violence, natural disasters, medical conditions, substance abuse, suicide and suicide attempts). Further, this class also examines the strategies utilized by treatment providers and first responders, such as police and firemen, to these traumatic events.

**CMLGY3017****3 Credits****Reimagining Justice: The Creation of Just Societies**

This course introduces students to competing theories of justice and how these theories shape the American justice system. This course is separated into two halves. The first half covers philosophical theories of justice so that students may gain a broader understanding of how and why the U.S. justice system exists in its present state. The second half discusses competing justice system models and allows students to consider how these models differ in their philosophical underpinnings.

**CMLGY3019****3 Credits****Restorative Justice**

With growing evidence that the American criminal justice system is fundamentally flawed, policymakers have begun to explore alternative ways to address crime in society. One viable alternative appears to be restorative justice, a social movement and set of practices that views criminal behavior as harm against people and relationships rather than violations against the state. Students in this class will read about, debate and critically analyze whether this growing movement holds the potential for a better, more humane system of justice.

**CMLGY3020****3 Credits****Race, Class and Policing in the Divided States of America**

In contemporary society, the state grants police the power to use force when necessary to maintain safety and security. Racial, economic and ethnic minority citizens have disproportionately been affected by this police power. Community members living in “hot spots” of crime have

claimed that the police have targeted their communities to suppress, control and pacify their people rather than to serve and protect families living there. On the other hand, police departments have declared that their actions and policies within these same communities serve as a “thin blue line” protecting the decent citizens from those seeking to endanger them. This class seeks to clarify and inquire how we arrived at this place in American history; or perhaps how we have always been here but have chosen to ignore it.

**CMLGY3030****3 Credits****Surveillance and Security**

Recent revelations about data collection by actors as varied as the National Security Agency and Facebook have challenged many of the basic beliefs about power and privacy. It is increasingly clear that people’s bodies, images and words are ceaselessly tracked, sorted, profiled, stored in databases and recalled by algorithms — all in the name of a loosely defined concept called “security.” In this class, students will interrogate these uneasy relationships between surveillance and security, looking at both state surveillance practices as well as visual practices aimed at monitoring the state. By engaging with a broad array of media — academic research, social theory, television, film, fiction — students will debate the role of surveillance in generating security, but also focus on the ways that broad data collection can actually enable populations to act in new and beneficial ways. (Equivalent to GEOG3030 Surveillance and Security.)

**CMLGY3040****3 Credits****Capture and Control**

Modern democratic states often rely on practices of detention and incarceration in order to demonstrate (and increasingly, to circumvent) the power of the rule of law. As a result, international and domestic detention spaces like refugee camps, jails and for-profit prisons, war prisons, black sites, migrant detention islands, border checkpoints and protest camps are utilized in an ever-expanding number of spatial, legal and political contexts. In this course, students will explore these spaces and engage in a detailed historical and theoretical investigation of the complex and often-contradictory processes that produce them. (Equivalent to GEOG3040 Capture and Control: Geographies of Detention and Incarceration.)

**CMLGY3201****3 Credits****Race and Crime**

This course examines the relationship between race, crime and the justice system within America’s political and social context. The course integrates critical discussion with cutting-edge research and current events on the importance

of race and ethnicity in relation to crime, the justice system and the political process. The purpose of this course is to help students build the analytic and critical skills necessary to gain deeper, better-grounded insights on the importance of issues of race, crime and justice. In this age of mass information, people are bombarded with facts, figures and opinions with little background or historical context in which to understand them. Debates are often polarized and frequently provide little evidence for one position over another. Furthermore, much contemporary discussion about racism and criminal justice emphasizes the racist acts of specific individuals — police, judges, victims, journalists and so on. This course moves beyond simplistic, individualistic ideas about race and racial bias, examining whether and how racial inequality and racism are embedded in the social and political fabric of American society as well as within its social and political institutions. Through this wider lens, students can better understand and discuss how racial disparities in crime and justice both reflect and contribute to racial and social inequality more broadly.

**CMLGY3205****3 Credits****Responses to Mass Violence**

This course would focus on societal responses to dealing with mass violence. Specifically, students would be exposed to examples of domestic and international episodes of mass violence and the governmental and nongovernmental responses created to redress mass violence and human-rights violations. This course would introduce concepts of transitional justice and use contemporary and historical examples from the United States, Rwanda, Cambodia and other sites where mass violence has taken place.

**CMLGY3207****3 Credits****Offender Reentry and Reintegration**

Offender reentry is the process of transitioning offenders from prisons/jails to the community. The class will provide students with an in-depth analysis of issues impacting offender reentry including employment, access to various forms of treatment, family reunification and housing issues as well as barriers and impediments to offender reentry.

**CMLGY3250****3 Credits****Crime and Punishment in South Africa**

This course examines the complex history of criminality and state response in the African subcontinent. Although the class will examine the nature of precolonial crime and punishment, the focus of the course will be on the colonial period and the apartheid era that followed. Rogues, rebels, shebeen queens, tsotsis (gangsters), highwaymen and corporate raiders all

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make appearances in this course that mixes traditional lectures with seminar-style discussions. (Equivalent to HIST3250 Crime and Punishment in South Africa.)

## CMLGY3251

3 Credits

### Crime and Punishment in Latin America

This upper-level course examines the changing cultural paradigms about order, crime, justice and punishment in Latin America and their impact on society and institutions. Chronologically, the course will be divided into four main sections: pre-Hispanic notions of social control and order (until the 1500s), the colonial foundations of racial and religious criminalization and repression (1500s to early 1800s), the early republican state and the modernization of the means of social control (mid-1800s to the 1930s) and crime and punishment in the 20th and 21st centuries (1930s to the present). Particular attention will be given to topics such as social-control policies, the police, narco-trafficking and crime, political crimes, genocide and justice. (Equivalent to HIST3251 Crime and Punishment in Latin America.)

## CMLGY3301

3 Credits

### Women and Crime

This course examines the major theoretical explanations of both female offending and victimization. It will analyze the sociological, cultural and political forces that have shaped the construction of the female offender in society. Additionally, the class will examine the role of gender in shaping the female experience within the criminal justice system as a whole.

## CMLGY3305

3 Credits

### Comparative Criminal Justice System: United States and United Kingdom

This course will comparatively study and analyze the criminal justice systems and philosophies of punishment in the United States and the United Kingdom. Taught in collaboration with British criminal-justice professionals and the faculty of Wroxton College, the course will examine the social, cultural, historical, political, operational and administrative components of both countries. The course will feature guest lecturers from and/or field visits to local police constabularies, the London Metropolitan Police and Scotland Yard, the Supreme Court, London's highest criminal court (the Old Bailey) and a medium-security prison.

## CMLGY3307

3 Credits

### Civil Liberties and Civil Rights

Analysis of Supreme Court decisions concerning speech, press, religion, rights of women, racial discrimination and affirmative action. (Equi-

alent to GOVT3210 Civil Liberties and Civil Rights.)

## CMLGY3308

3 Credits

### Law and Society

Law as a determinate of social control and change analysis of legal systems and their administration with special emphasis on law affecting the poor.

## CMLGY3309

3 Credits

### Policy Analysis

Is Megan's Law a good policy? What about Three-strikes Laws? Many criminal justice policies have been passed due to public sentiment without proper evaluation. The goal of this class is to teach students to critically analyze, evaluate and develop sound criminal justice policies.

## CMLGY3310

3 Credits

### Juvenile Delinquency

This course examine the juvenile justice system in the United States, including the roles of the court, police and corrections. Current empirical evidence regarding trends in juvenile delinquency will be provided, along with a thorough examination of the theoretical causes of juvenile crime.

## CMLGY3316

3 Credits

### Global Terrorism

This course will provide a basis for understanding international terrorism, with a special focus on the frontlines. Students will study historical and current conflicts involving terrorism, including the Battle of Algiers, Israel and Palestine (Hamas and Hezbollah), Al Qaeda and the global war on terrorism. The class will also examine the bombings of the USS Cole, Khobar Towers and 9/11. It will look past U.S. policies and tactics such as interrogations, indefinite detention, extradition/rendition and rehabilitation/de-radicalization.

## CMLGY3349

3 Credits

### War and Crime

A historical and comparative analysis of social, ethnic, religious and national conflicts with special emphasis upon understanding and analyzing the customary, moral and legal regulation of armed conflict. A case-analysis approach is used to illustrate the complexity subjecting warfare to legal regimes. (Equivalent to ANTH3349 War and Crime.)

## CMLGY3360

3 Credits

### Forensic Psychology

This course will explore the complex interaction between psychology and the law, and it will focus on how psychologists work within the

legal arena. Criminal and civil cases will be discussed and a sampling of topics to be covered includes: jury selection, eyewitness reliability, profiling, legal insanity, forensic evaluations/reports and court testimony.

## CMLGY3404

3 Credits

### International Criminal Law

A review of the key concepts, processes, institutional and organizational components of the international criminal legal system. Problems to be analyzed include terrorism, crimes against humanity and war crimes, piracy, drug trafficking, and trafficking of women and children. The course examines the foundations and justification of the establishment of the mechanisms of international criminal law, the relationship between treaties and custom, the problems of sovereignty and the use of force, the emergence of international tribunals and courts for the trying of offenders.

## CMLGY3841

3 Credits

### Torture

This course explores a wide range of questions about a particular form of political violence practiced by many states: torture. Examining state-sponsored torture from empirical, normative and analytical perspectives over time and across political space, the class explores the what, why, when, where, how and who of torture. (Equivalent to GOVT3841 Torture.)

## CMLGY3997

1-6 Credits

### Internship in Criminology

Supervised internship in criminology fields with practical, experiential and academic components. More than one criminology internship may be completed.

## CMLGY3998

1-6 Credits

### Internship in Criminology

Supervised internship in criminology fields with practical, experiential and academic components. More than one criminology internship may be completed.

## CMLGY4700

3-15 Credits

### Washington Center Internship

This is a one-semester internship in Washington, D.C., through the Washington Center Internship Program. Students may register for 3 to 15 credits.

## CMLGY4710

3 Credits

### Post-exoneration Offending

Students will aid in data collection, coding and analysis for a research project examining wrongful convictions' aftermath.

**CMLGY4844****3 Credits****Game Theory**

This course is an introduction to some basic concepts in noncooperative game theory and their application to a range of problems in several social-science disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher.

**CMLGY4845****3 Credits****Agents in the Matrix: Creating and Analyzing Agent-based Models**

This course introduces students to a powerful transdisciplinary computational tool for exploring complex systems: a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher. (Equivalent to ECON4845/GOVT4552 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

**CMLGY4900****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**CMLGY4901****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**CMLGY4902****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**CMLGY4903****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**Economics****Department of Social Sciences  
and History****ECON1111****3 Credits****Introduction to Economics**

Introductory survey of modern economics. The course offers a basic working vocabulary in economics and relies on a minimal amount of mathematical expression for students with no previous exposure to the field. Among the central concepts broached are markets and regulation, trade and tariffs, fiscal and monetary policy, distribution and redistribution.

**ECON2001****3 Credits****Introduction to Microeconomics**

Problems of consumer behavior and demand, the allocation of resources of production, factor pricing and market conduct under pure competition, imperfect competition, oligopoly and monopoly.

**ECON2102****3 Credits****Introduction to Macroeconomics**

A comprehensive introduction to macroeconomics. The concept of national income analysis, the theory of determination of income and employment, problems of fiscal and monetary policy and aspects of international trade. Prerequisite: ECON2001 Introduction to Microeconomics.

**ECON2203****3 Credits****Intermediate Macroeconomics**

The determination of national income, inflation, unemployment and interest rates using classical, Keynesian, monetarist, new classical, new Keynesian and supply-side economics. Monetary and fiscal policy alternatives. Prerequisite: ECON2102 Introduction to Macroeconomics.

**ECON2204****3 Credits****Intermediate Microeconomics**

The theory of demand, economics of the firm, cost, price and distribution. Prerequisite: ECON2001 Introduction to Microeconomics.

**ECON2206****3 Credits****Economic History of the  
United States**

An empirical and theoretical analysis of the economic and financial growth of the United States, including changes in the industrial structure, technology and level of national product. Prerequisites: ECON2001 Introduction to Microeconomics, ECON2102 Introduction to Macroeconomics or the instructor's permission.

**ECON2207****3 Credits****Introduction to Econometrics**

Quantitative analytical methods, combining economic theory, mathematics and statistics. Prerequisites: ECON2203 Intermediate Macroeconomics, ECON2204 Intermediate Microeconomics or the equivalent.

**ECON2208****3 Credits****International Trade**

Theoretical and practical aspects of world trade; studies of comparative cost advantages, tariff policies, balance of payments, foreign exchange market, foreign investments, foreign trade promotion and trade agreements. Prerequisite: ECON2102 Introduction to Macroeconomics.

**ECON2250****3 Credits****Economic Methods**

This course provides an introduction to the theories and methods underlying modern social science research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own research projects using a variety of qualitative and quantitative techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

**ECON3307****3 Credits****Public Finance**

Government in a mixed economy and its impact on the individual, the firm and the market. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

**ECON3310****3 Credits****Current Economic Problems**

Economic (national and international) problems facing the United States.

**ECON3314****3 Credits****The Russian Economy**

Economic developments in the former Soviet Union since 1917, including Soviet economic planning and the post-Soviet transition.

# English Language and Literature • Film and Animation

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## ECON3315

3 Credits

### **Economics of the Near and Middle East**

Geographical, cultural, social and other factors influencing the economic development of individual countries, as well as the entire area.

## ECON3319

3 Credits

### **Politics of the Global Economy**

Studies the relationship between political events and economic actions on the international economy.

## ECON3366

3 Credits

### **Government and Business**

The economic position of the United States government with respect to economic policy, including government regulation of business, growth, stability and the redistribution of income. Prerequisite: ECON2102 Introduction to Macroeconomics.

## ECON4075

1–3 Credits Each Semester

### **Honors Seminar**

## ECON4401

3 Credits

### **Economics Seminar**

Seminar on a topic selected by the instructor. Prerequisite: the instructor's permission.

## ECON4421

3 Credits

### **Selected Studies in Economics**

Studies in an area of economics. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

## ECON4430

1–3 Credits Each Semester

### **Selected Studies in Economics**

Studies in an area of economics or regional studies.

## ECON4461

3 Credits

### **Economic Sociology**

Means, mechanisms and ways people understand their relationship to production, consumption and the distribution of goods, commodities and, most importantly, value. Note: Blended course. Meets in person and online. Equivalent to SOCI4461 Economic Sociology.)

## ECON4477

1–3 Credits Each Semester

### **Honors Research and Thesis**

## ECON4800

3 Credits Each Semester

### **Independent Study in Economics**

## ECON4844

3 Credits

### **Game Theory**

This course is an introduction to some basic concepts in noncooperative game theory and their application to a range of problems in several social-science disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher.

## ECON4845

3 Credits

### **Agents in the Matrix: Creating and Analyzing Agent-based Models**

This course introduces students to a powerful transdisciplinary computational tool for exploring complex systems: a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher. (Equivalent to CMLGY4845/GOVT4552 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

## ECON4900

3 Credits

### **Faculty/Student Research**

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## ECON4901

3 Credits

### **Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

# English Language and Literature

*Department of Literature,  
Language, Writing and Philosophy*

*See Literature, pages 336–341, and  
Writing and Creative Writing,  
pages 367–369.*

# Film and Animation

*School of the Arts*

## Animation

### ANIM1300

3 Credits

#### **Writing for Animation**

Any memorable animation starts with a story. This course teaches how to transform basic ideas into animated stories by learning to write for visual media. While nurturing their individual writing style, students learn to develop premises, outlines and final scripts for animation in proper industry standard format. How to structure plots, create tone and build themes are covered in this course.

*Fee*

### ANIM1400

3 Credits

#### **Character Design**

Character design takes place during the initial production stages of animated films and video games and plays a crucial role in the creation and success of those projects. Students in this class learn the process of designing imaginative original characters by creating character-development documents, which consist of sketched and digitally enhanced poses and facial expressions assembled into model sheets along with written character biographies. These materials, which are typically utilized in the industry, aid in defining the appearance, poses and behavior of an animated character.

*Fee*

### ANIM1500

3 Credits

#### **Storyboarding**

In this class, students learn to produce storyboards, which are a series of sketches displayed in sequence for the purpose of pre-visualizing an animation, after which they assemble those sketches into animatics to establish timing and pacing. Students brainstorm together, just as a creative team would do in the industry, by arranging and rearranging their sketches in order to evoke stronger reaction or interest based on their classmates' input and feedback. Through this process, students consider modifications in their storylines as well as additional scenarios that may contribute to the enhancement of their ideas.

### ANIM1501

3 Credits

#### **Fundamentals of Animation Principles**

This course teaches the principles of animation used to produce the illusion that the characters

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in an animation are following the basic laws of physics. Students learn how to show weight and flexibility while also emphasizing and exaggerating abstract issues, such as emotional timing and character appeal. Portraying natural motion and anticipation in order to prepare the audience for an action, as well as how to direct the audience's attention, is covered in this course. Topics include timing, speed, momentum, secondary action, anticipation, follow through, weight, balance, mood, emotion and personality.

*Fee*

## ANIM1502

3 Credits

### Introduction to Stop Motion Animation

This course will explore the techniques used to produce stop motion animation and study the procedures for creating armatures and joints used in traditional 3D animation. Students will design and create characters from clay, plastic, foam and/or latex, manipulating them frame-by-frame to bring the characters to life. Through the creation of these projects, students will learn the history, secrets and tricks used to produce animation using tangible 3D media.

*Fee*

## ANIM1650

3 Credits

### Game Design

By studying the evolution and history of video games, students learn to plan the visual and interactive content, goals, game play and the rules of their own game ideas. This course also teaches how art specifications can conflict with technical constraints and how some ideas might be impractical to build. Students write in-depth game-design documents, where elements such as story, setting, character development, logical flow and levels are planned, and unforeseen issues are dealt with through modification of the paper design based on class critiques and feedback.

## ANIM1750

3 Credits

### Motion Graphics with After Effects®

By learning how to animate virtually every aspect of an element using Adobe® After Effects®, students create high-impact communications combining moving imagery, graphics, video, text and sound. This course focuses on manipulating moving images, dynamic effects and compositing techniques to produce animated content for virtually any media. The focus is on quality design and animation targeted at high-end, commercial-style production. Color management and enhancement tools used in the manipulation of photos and videos while preserving clarity and color integrity are also covered in this course.

*Fee*

## ANIM1800

3 Credits

### Vector Animation Using Animate CC

This course teaches how to design interactive animations using Adobe Animate CC's innovative drawing tools and publish them to multiple platforms. Students learn to recognize and implement the basic principles of animation into their projects. The focus is on learning the vector animation toolset and the motion editor to create multifaceted animations targeted at mobile devices as well as today's ultra-high-resolution displays.

*Fee*

## ANIM1850

3 Credits

### 3D Computer Modeling

This course is an introduction to the 3DS MAX software interface and its various features. The focus is on learning how to build high-detail 3D models, create and apply high-quality textures and implement lighting and cameras. Students create manmade and organic objects and learn to effectively critique their own as well as their classmate's work.

## ANIM2100

3 Credits

### Tradigital Animation

This course teaches a mixed-media approach of using the computer to seamlessly combine two- and three-dimensional animation. Students learn to merge studio art media with digital animation to produce free-flowing traditional style animation that is completely digital. Emphasis is on the emerging movement of exploring technologies that blend computer animation with classical cell-animation techniques. Prerequisite: ART1201 Drawing I.

*Fee*

## ANIM2240

3 Credits

### Low Poly 3D Modeling

This introductory course focuses on the design and creation of low polygon 3D models and textures as they relate to interactive-game production. Students learn to create assets that fit within the guidelines, limitations and goals of those capable of being utilized in 3D engine platform games. This course teaches students how to plan ahead so when producing models for interactive use they will be as low poly as possible, yet still look as high quality as possible in-game.

## ANIM2243

3 Credits

### Advanced After Effects®

Students take their motion graphics skills to the next level by animating, editing and compositing media in both 2D and 3D space in this course. They also learn to produce impressive digital effects and composite artwork with live-action footage using finely tuned keying techniques.

Topics include advanced visual effects, particle systems, high-end 3D layers, lighting, depth of field, cartoon character rigging and puppeting, morphing and motion tracking. Prerequisite: ANIM1750 Motion Graphic with After Effects®.

*Fee*

## ANIM2245

3 Credits

### 3D Character Modeling

Characters are an integral part of many film and video game projects. In this course, students learn to design and create segmented and seamless 3D characters using a variety of 3D Studio MAX's modeling and texturing techniques. The detailed designs and complex techniques that will be learned in this course are necessary in making characters come to life. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

## ANIM2270

3 Credits

### ZBrush Digital Sculpting Human Anatomy

This class teaches digital sculpture by learning how to create ultra-realistic, lifelike 3D characters using ZBrush. The focus is on planes, anatomy, form, rhythm and proportion while learning how to add a high level of detail to polygonal meshes utilizing the application tools. Digital sculpting techniques and texture painting are discussed and taught through a variety of demonstrations, exercises and in-depth assignments. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

## ANIM2285

3 Credits

### 3D Asset Creation for Video Games

The course teaches students how to design, create and import 3D models into a game-mesh renderer that mimics the settings found in today's popular game engines. Learn to create and organize asset libraries and properly assign textures and materials to those elements. Convert texture layers created in graphics programs to normal maps and other types of maps, such as ambient occlusion and cavity maps, which are necessary for producing fast and efficient high-quality game renderings. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

*Fee*

## ANIM2300

3 Credits

### Texturing for 3D Production

The course focuses on in-depth analysis of texture principles, materials, color, characteristics, properties and their application in 3D computer artwork. Students develop a fundamental understanding of material identification and texture creation. Emphasis is placed on the ability to examine real-world textures and identify each

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characteristic found in those materials. Learning how to properly apply and adjust alignments using various texture-mapping techniques is also covered in this course. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

*Fee*

## ANIM2500

3 Credits

### 3D Computer Animation

The course teaches the basics of 3D animation, including physics, substance, reaction and force. Topics include keyframing, function curves, motion paths, dope sheets, aesthetics and limited special effects. After first sketching and refining storyboards that communicate their ideas, students then move on to the computer phases of the projects. They are expected to produce animations that emulate real-world physics as well as exhibiting mood and symbolism. Everyone in the class participates in critiques of their own, as well as their classmates', work. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

*Fee*

## ANIM3225

3 Credits

### Vector Animation II

This course builds on the skills learned in ANIM1800 Vector Animation Using Animate CC. The emphasis is on a broader use of the vector animation toolset and the motion editor to generate engaging animations. Students learn to increase their attention to detail and study the intricacies of creating sophisticated animated pieces. Prerequisite: ANIM1800 Vector Animation Using Animate CC.

*Fee*

## ANIM3250

3 Credits

### 3D Particle Animation and Effects

This course teaches how to create, control and optimize various types of 3D particle systems within Autodesk's 3DS MAX. Students learn how to effectively implement special effects such as fire, explosions, fluids, dust, bubbles, disintegration, physics, collisions, etc., into their 3D scenes and animations. Prerequisite: ANIM2500 3D Computer Animation.

## ANIM3330

3 Credits

### 3D Environment Modeling

This course focuses on taking all aspects of 3D modeling, lighting and texturing learned in previous courses to a higher level. By creating detailed 3D environments, students gain a greater understanding of the software tools and how to manipulate the complex details of each to improve the visual aesthetics of their finished renders. How to see the flaws and identify areas of

improvement in their own works as well as their classmates' pieces is discussed in class critique sessions. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

*Fee*

## ANIM3331

3 Credits

### Logo and Product Animation

Students design logos and work with a variety of types of animation and special effects to create commercial-style animation. Prerequisite: ANIM2500 3D Computer Animation.

*Fee*

## ANIM3341

3 Credits

### Character Animation Using CAT

This course teaches students how to apply and manipulate the basic character animation techniques found within the CAT tool set. Students learn how to rig, add muscles, create facial morphs and apply and adjust the Physique and Skin modifiers, which perform the mesh deformation necessary to move the character throughout the 3D scene. How to work with and combine the various CAT layers to produce smooth, believable animation is covered in this course. The details of secondary motion, follow through and asymmetrical poses to emulate life-like body gesture and facial expression are discussed and critiqued. Prerequisite: ANIM2500 3D Computer Animation.

*Fee*

## ANIM3343

3 Credits

### Advanced Character Animation

This class builds on the character rigging and animation skills learned in the previous CAT course. Students continue to develop the artistic and technical skills necessary to become successful character animators by concentrating on the critical principles of animation like motion area, weight, overlapping motion, subtleties using animation layering and muscle simulation. The focus is on how to increase empathy for their animated characters by better displaying feelings of happiness, desolation and distress and articulating the personality and emotion to the audience. Prerequisite: ANIM3341 Character Animation Using CAT.

*Fee*

## ANIM3345

3 Credits

### Custom 3D Character Rigging and Animation

Students will study rigging, skinning and animating characters using 3D Studio MAX's bones and skinning techniques and learn how to adjust envelopes and weight tolerances, and to animate using traditional inverse-kinematics. They will add basic emotion through facial ex-

pression using morph targets, sub-level polygon animation and animated textures. Students will sketch their character designs and storyboard the animation before moving on to producing a short 3D character animation that will focus on both primary and secondary motion. Prerequisite: ANIM2500 3D Computer Animation.

## ANIM3350

3 Credits

### 3D Game Creation Using Unreal

This course teaches students how to use the Unreal game engine, which is a unified suite of tools for constructing every aspect of video games. Students will design and produce original 3D gameplay by integrating their ideas into interactive prototypes and simulated 3D environments. Other topics include rendering UI, level building, animation, visual effects, physics and asset management. Prerequisite: ANIM2500 3D Computer Animation.

## ANIM3450

3 Credits

### 3D Game Creation Using Unity

Students learn to integrate their game ideas into Unity's powerful rendering engine. This course teaches how to use Unity's animation system to bring characters and objects to life inside of a gaming environment. Students also utilize the tools provided to create interactive 3D and 2D graphic content while learning how to reduce the time needed to create visually stunning games. The focus of this course is on how to assemble scenes used in creating games containing high-quality visuals, audio and realistic action that performs well on any platform. Prerequisite: ANIM2500 3D Computer Animation.

*Fee*

## ANIM4100

3 Credits

### Design and Development of Video Games

This class is project based, where game development students and video game animation students work in groups to design and develop their own video games. In order to gain interdisciplinary work experience, the teams will design and develop 2D and 3D games in order to understand the production cycle found in real-world, game-creation projects. Prerequisites: ANIM1650 Game Design and ANIM2500 3D Computer Animation.

*Fee*

## ANIM4422

1-3 Credits

### Internship in Animation I

Intern at a company or organization, in an animation, interactive multimedia, web design or graphic design facility for between five and 20 hours per week. Prerequisites: permission of instructor and department chairperson.



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## ANIM4423

1–3 Credits

### Internship in Animation II

A continuation of ANIM4422 Internship in Animation I. Students will enter a new internship site or continue at a previous production or postproduction facility. Prerequisites: permission of instructor and department chair.

## ANIM4500

3 Credits

### Thesis I

This course is designed to prepare film and animation majors for exit from the program. It requires the student to write proposals and scripts, sketch storyboards and begin creating original 3D models for their thesis project. Prerequisite: permission of program director.

*Fee*

## ANIM4600

3 Credits

### Thesis II

The course requires students to complete, present and screen their thesis projects. Prerequisite: ANIM4500 Thesis I.

*Fee*

## ANIM4800

3 Credits

### Independent Study in Animation

Students will work independently on a special animation project or topic, which will be approved by the supervising professor.

## ANIM4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## ANIM4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: ANIM4900 Faculty/Student Research.

## ANIMH1202

3 Credits

### History of Special Effects and Animation

Students investigate and analyze the history and evolution of special effects and techniques while applying that understanding to modern-day visual effects and animation. Starting with camera methods, this course covers topics that include traditional stop motion, claymation, camera-motion control, matte paintings, rotoscoping, models and miniatures. This class also explores modern computer-generated visual effects, animation, compositing and production techniques.

## Film

### FILM1004

3 Credits

#### Filmmaking I for High School Students

A foundation is established in understanding the creative possibilities in film production and basic visual communications. Television and film techniques in camera, story and editing are stressed. Mini-productions in narrative, documentary, interview format, along with technical understanding of basic concepts in production. (Equivalent to FILM1005 Filmmaking I: Basic Production.)

*Fee*

### FILM1005

3 Credits

#### Filmmaking I: Basic Production

The language of cinema. Techniques in camera, story and editing are stressed. Narrative and documentary productions are assigned, as the class pursues both an understanding of basic production and storytelling concepts. (Equivalent to FILM1004 Filmmaking I for High School Students.)

*Fall, Spring*

*Fee*

### FILM2006

3 Credits

#### People at Work: The Psychology of the Office

Throughout their lives, most people will spend more time at work interacting with strangers than in any other activity. These interpersonal activities give rise to many situations and interactions that are — from a psychological perspective — unique and study-worthy. Using the popular TV series “The Office” as a case study, this course will explore the psychological and sociological dimensions of the office as a workplace and examine the personalities, interactions, emotions and behaviors that exist in the work environment.

### FILM2007

3 Credits

#### Abnormal Psychology in Film

The purpose of this course is to use film as a vehicle to gain an understanding of abnormal psychology. The course objectives will include the following: to introduce basic concepts and theories of abnormal psychology, to explore historical and current perspectives across theoretical perspectives of abnormal psychology and to relate the above to various treatments and interventions.

### FILM2009

3 Credits

#### Filmmaking as a Tool for Social Change

Designing powerful cinematic imagery that addresses critical social issues is now available,

even to nonprofessionals. Filmmakers can learn to use their work to increase public awareness of a variety of social issues across the globe as well as on an individual basis. Through a combination of craft and tools, students will learn how to communicate a powerful message with film, using light, inexpensive equipment. This course will explore how film has been an agent of change and how these tools can be used.

### FILM2208

3 Credits

#### Filmmaking II: The Professional Crew

Techniques of the professional crew. This course focuses on preproduction, production, working as a team and at reaching an understanding of all the crafts and crew positions that go into production. Script breakdowns, scheduling and advanced production techniques such as sound mixing, booming, lighting and camera work, as well as beginning editing skills are the focus of this class. Prerequisite: FILM1005 Filmmaking I: Basic Production.

### FILM2210

3 Credits

#### Postproduction I

The course presents advanced nonlinear editing approaches to film and video through the use of practical assignments and introducing a knowledge of the history of film editing and its practice. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

*Fee*

### FILM2214

3 Credits

#### Audio for Film and Video

Learn the basics and aesthetics of film/video sound and music. The class will involve workshops and lectures in recording live sound, postproduction mixing and sound design. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

*Fee*

### FILM2216

3 Credits

#### The Radio Documentary

Students will study and create in the unique form of the radio documentary. Starting with audio source material and research, the class will prepare long-form news stories and documentary features, and learn how to use audio for dramatic effect. Work will culminate in the creation of a program designed to work through its effective use of audio. The class will also visit production companies to meet with creators of audio content and to gain from their knowledge and experience. All efforts will be made to have the student-produced work broadcast on a local radio station. Prerequisite: COMM2214 Introduction to Broadcasting.

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## FILM2250

3 Credits

### Screenwriting I

Students learn the basics of screenplay structure, character development, dialogue, rising and falling action, conflict and resolution by writing scripts and reading and analyzing successful screenplays. Students complete short scripts that may be used in other classes as shooting assignments. (Equivalent to CREW2250 Screenwriting I.)

## FILM2251

3 Credits

### Screenwriting II

Advanced techniques of writing for motion pictures. Emphasis is placed on writing the feature screenplay. Students look deeper at character flaws and reversal, fine-tuning their creative voice and style and the development of a story that is worthy of someone giving up two hours of their life. Students will complete a feature-film screenplay. Advanced students also deal with the realities of marketing their work.

## FILM2255

3 Credits

### TV News and Magazine Production

Students will learn how to identify, develop and produce single-camera field productions for TV spot news, TV news feature stories and TV news magazine segments. Students will write, direct, shoot and edit in a fast turnaround schedule common in the TV news industry. Prerequisite: FILM1005 Filmmaking I: Basic Production.

## FILM3109

0 Credits

### Film and Actors Lab

A laboratory to provide a meeting time for collaboration between film directors, cinematographers and actors. The course will run to facilitate those taking DAN3316 Stage Combat I, FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production and FILM3214 Cinematography: Camerawork, when these courses are run concurrently. Corequisite: DAN3316 Stage Combat I, Filmmaking III: Mastering the Art and Craft of Film Production or FILM3214 Cinematography: Camerawork.

## FILM3209

3 Credits

### Filmmaking III: Mastering the Art and Craft of Film Production

A continuation of the filmmaking sequence. Student stories and productions are pursued. The focus of this course is on individual project design and management, stressing new and advanced production techniques.

## FILM3211

3 Credits

### Cinematography: Lighting

Lighting is what creates mood, depth and believability on the screen. This class covers both

the art and the craft of lighting — from the physics of light and basic electricity to lighting units, film lighting styles and professional techniques. Students learn from in-class lighting demonstrations, out-of-class lighting assignments, watching and discussing the lighting techniques of the masters in cinematography. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

*Fee*

## FILM3212

3 Credits

### Postproduction II

A continuation of FILM2210 Postproduction I. In-depth aesthetic exploration using nonlinear editing styles and procedures, including planning special effects and their implementation in digital postproduction. Prerequisites: FILM2208 Filmmaking II: The Professional Crew and FILM2210 Postproduction I.

*Fee*

## FILM3214

3 Credits

### Cinematography: Camerawork

Advanced study of camera work from angles, frame composition, filters and camera movement to exposure, focus and lenses. Course will include viewing and discussion of camera work in film, video and television as well as practical, in-class exercises and critiques. Students will also learn about film stocks and development processes by shooting 16mm in-class assignments and will examine the work of famous significant directors of photography.

*Fee*

## FILM3253

3 Credits

### Screenwriting III: Feature Films

An advanced course focusing on the art of writing feature films. Students will delve into how films of a longer length, greater depth and increased character development are researched and written. They will be expected to work on films of a feature length and master the art of story on a deeper level than in previous courses. Prerequisite: FILM2251 Screenwriting II.

## FILM3303

3 Credits

### Advanced Screenwriting I

For students who are seriously interested in developing as writers for film. Full-length screenplay to be started.

## FILM3304

3 Credits

### Advanced Screenwriting II

This course is a continuation of FILM3303 Advanced Screenwriting I. Full-length screenplay to be completed.

## FILM3363

3 Credits

### Film Directing

The advanced student will study both the theory and techniques of directing the narrative film.

*Fee*

## FILM3401

3 Credits

### Advanced Cinematography

This course will cover advanced subjects and techniques in cinematography and lighting, and delve into the work of noted cinematographers. Subjects will include blocking for the camera, planning effective camera movement, creating cinematographic styles and the use of an artistic color palette for narrative film. Prerequisite: FILM3214 Cinematography: Camerawork.

*Fee*

## FILM3425

3 Credits

### 16mm Motion Picture Photography

Course will cover techniques, properties and artistic applications of shooting motion picture film as well as the operation of the 16mm film camera. Film stocks, contrast, grain, color range, special processing such as pushing, flashing and bleach bypass will also be discussed. Students will learn from in-class shooting exercises, viewing of dailies, visits to Kodak and discussions with cameramen as well as screenings and lectures.

## FILM3426

3 Credits

### Producing Movies

The business of motion picture production. What is the role of producer as both artist and business person? Emphasis will be on the financing of film and media projects, assembly of creative team and analysis of material from the producer's perspective. The class will look into budgets and how to plan film and television production, with an emphasis on the role of the producer and the creative organizational techniques of producing.

## FILM3427

3 Credits

### Distributing Movies and Media

Finding the audience and the market. How does a film, television or media project move from concept to market? This class will focus on the marketing and distribution of films across multiple platforms and methods of exploitation. It will study both traditional and new methods of exploiting media, from working with large established companies to self-distribution.

## FILM3430

3 Credits

### Reality TV Production

Reality TV is now an undeniable part of popular culture both in the U.S. and abroad and has become a major successful genre in television.

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Students will learn the unique production procedures that shooting a reality TV show requires by examining the long-running, Emmy-nominated and internationally popular TV series "Project Runway." Students will learn firsthand by using "Project Runway" as a model to create, produce and edit their own reality series that will then be aired on the FDUTV YouTube channel. Prerequisite: COMM3349 Introduction to Television or FILM1005 Filmmaking I: Basic Production.

## FILM3462 3 Credits

### Advanced Production

This course will deal with problems experienced in the production of features and documentaries.

## FILM3800 1–6 Credits

### Junior Independent Study

Independent study in film at the junior level.

## FILM4001 3 Credits

### Faculty/Group Student Research

Members of the faculty engage in research projects with a select group of students with the goal of professional publication or presentation.

## FILM4005 1 Credit

### Entering the Freelance World

This course is designed to address career readiness for film majors. Students will learn how to prepare themselves for freelance work and for all aspects of professional life. This will include how to network and find work, keep records for tax purposes (freelancers are independent contractors), including invoicing and collecting from clients. Students will also learn the job expectations of a production assistant as well as on-set work ethics and professional behavior. The course will include guest speakers from the industry, such as working alumni and a production manager. Upon completion of this course, students will be better prepared for looking for and succeeding in gaining freelance work in the entertainment industry. Prerequisite: FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production.

## FILM4311 3 Credits

### Producing and Directing the Thesis Film I

This course is designed to prepare film majors for exit from the program. Each student will create an original narrative or documentary production or other approved project, at short or feature length. Prerequisite: FILM2210 Postproduction I, FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production or permission of department chair.

Fall, Spring

Fee

## FILM4312 3 Credits

### Producing and Directing the Thesis Film II

This course is designed to prepare film majors for exit from the program. Each student will create an original narrative or documentary production or other approved project, at short or feature length. Prerequisite: FILM4311 Producing and Directing the Thesis Film I.

Fall, Spring

Fee

## FILM4409 3 Credits

### Music Scoring for Film–Video

Students will study the basic elements of music as well as the fundamental techniques of scoring, the use of MIDI and current computer technology. The course is designed for students with video and film backgrounds as well as those with a very specific musical background.

## FILM4422 3 Credits

### Internship in Film I

Intern at a company or organization, in a production or postproduction facility, for between 5–20 hours per week. Prerequisites: permission of instructor and department chair.

## FILM4423 3 Credits

### Internship in Film II

A continuation of FILM4422 Internship in Film I. Students will enter a new internship site or continue at a previous production or postproduction facility. Prerequisites: permission of instructor and department chair.

## FILM4461 3 Credits

### Documentary Filmmaking

This course is for the filmmaker whose interest is primarily in creating documentary footage that explores a wide range of issues, whether social, economic and/or political. Prerequisite: FILM2208 Filmmaking II: The Professional Crew or email hoffman@fdu.edu for permission.

Fee

## FILM4463 3 Credits

### Sports Video Production

This course is designed for the student primarily interested in the exploration of the general and aesthetic issues of the sports world. Prerequisite: FILM2208 Filmmaking II: The Professional Crew and FILM2210 Postproduction I.

Fee

## FILM4465 3 Credits

### Client-driven Production I

Working with nonprofit, corporate and government organizations. Students gain real-world ex-

perience working on productions for corporate clients or for nonprofit or government organizations. Students handle production concepts, scripts and fill the roles of scriptwriters, camera operators, production managers, sound-mixer, boom, editor, etc., resulting in a training, corporate image or marketing-type film.

Fee

## FILM4466 3 Credits

### Producing the Digital Film I

Students will participate in all areas of producing a feature film. Based on scripts submitted by filmmakers of some renown, the class seeks to produce a digital film that will receive theatrical distribution. Students will handle responsibilities on and off the set and gain experience working with a professional filmmaker. Prerequisite: FILM2208 Filmmaking II: The Professional Crew or permission of instructor.

Fee

## FILM4467 3 Credits

### Producing the Digital Film II

Students will participate in all areas of producing a feature film. Based on scripts submitted by filmmakers of some renown, the class seeks to produce a digital film that will receive theatrical distribution. Students will handle responsibilities on and off the set and gain experience working with a professional filmmaker. Prerequisite: FILM2208 Filmmaking II: The Professional Crew or permission of instructor.

## FILM4470 3 Credits

### Client-driven Production II

Working with nonprofit, corporate and government organizations. Students gain real-world experience working on productions for corporate clients or for nonprofit or government organizations. Students handle production concepts, scripts and fill the roles of scriptwriters, camera operators, production managers, soundmixer, boom, editor, etc., resulting in a training, corporate image or marketing-type film. Prerequisite: FILM4465 Client-driven Production I.

Fee

## FILM4800, FILM4801, FILM4802, FILM4890, FILM4891

### 1–5 Credits Each Semester Independent Study

## FILM4900

### 3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

# French Language and Literature

Maxwell Becton College of Arts and Sciences  
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## FILM4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: FILM4900 Faculty/Student Research.

## French Language and Literature

*Department of Literature,  
Language, Writing and Philosophy*

## FREN1001

3 Credits

### Beginning French I

An introduction to the language with practice in reading, writing and conversation. Corequisites: FREN1007 French Practicum I and FREN1008 French Practicum II.

## FREN1002

3 Credits

### Beginning French II

An introduction to the language with practice in reading, writing and conversation. Prerequisite: FREN1001 Beginning French I or departmental permission.

## FREN1007

1 Credit

### French Practicum I

This one-credit course is linked to FREN1001 Beginning French I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: FREN1001 Beginning French I.

## FREN1008

1 Credit

### French Practicum II

This one-credit course is linked to FREN1002 Beginning French II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: FREN1002 Beginning French II.

## FREN2003

3 Credits

### French Conversation I

Course focuses on conversation through writing, reading, literature and grammar. Note: FREN2003 French Conversation I and FREN2004 French Conversation II may be taken in any order.

## FREN2004

3 Credits

### French Conversation II

This course reviews important grammar topics and discusses contemporary issues in France.

Note: FREN2003 French Conversation I and FREN2004 French Conversation II may be taken in any order.

## FREN2005

3 Credits

### French Film

This bilingual course studies the evolution of French film with special emphasis on the contemporary period. It studies various movements in literature and the visual arts as they relate to film. (Equivalent to CINE2005 French Cinema.)

## FREN2006

1 Credit

### French Film Workshop

Writing and discussion in French of contemporary French films. Corequisite: FREN2005 French Film.

## FREN2007

3 Credits

### Francophone Current Events: Writing and Conversation

Taught in French, this course focuses on current events in the French-speaking world as a springboard for writing and conversation. Prerequisite: FREN1002 Beginning French II.

## FREN2008

3 Credits

### Writing in French

Students read and write in a variety of content areas. Emphasis is on written expression, building vocabulary and grammar. Prerequisite: FREN2003 French Conversation I, FREN2004 French Conversation II or departmental permission.

## FREN2205

3 Credits

### Contemporary France

A bilingual course, it discusses current issues on politics, the European Union, society and language related to France and its former colonies.

## FREN3005

3 Credits

### French Conversation and Translation

Advanced conversation course that focuses on translation techniques in several media.

*Fall*

## FREN3007

3 Credits

### French Culture and Civilization

This bilingual course introduces key topics in French history, politics, arts and literature as well as the sciences. It will also address contemporary issues in French culture.

## FREN3010

3 Credits

### Advanced French Grammar

This course focuses on intensive grammar review, sentence structure, building vocabulary and perfecting composition skills. Prerequisite: FREN2003 French Conversation I or FREN2004 French Conversation II.

## FREN3051

3 Credits

### Sex and Politics in French Literature

This course focuses on manners at court and beyond — from the 18th century to the end of the 19th century. Among the authors considered are Molière, Laclous, Marivaux, Dumas, Stendhal, Balzac, Baudelaire and Zola. Prerequisite: ENGW1002 Composition II: Research and Argument.

## FREN3432

3 Credits

### Advanced French Composition

Composition and essay writing are the main focuses of this course. Grammar topics are reviewed as students write on a variety of issues.

## FREN3452

3 Credits

### Writing in French

Students read and write in a variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisite: FREN2003 French Conversation I, FREN2004 French Conversation II or permission of department chair.

## FREN3502

3 Credits

### French Translation

This course focuses on translating written material.

## FREN3551

3 Credits

### Topics in French Literature I

This course focuses on the literature of the Middle Ages through the Enlightenment in France.

## FREN3552

3 Credits

### Topics in French Literature II

This course focuses on Romanticism, Realism, Modernism and other contemporary themes in Francophone literature.

## FREN3666

3 Credits

### Witches and Warlocks in the Western World

This course focuses on the definition of who and what is a witch, both in Europe and in North America, from the Middle Ages to the 20th century. Note: meets literature elective and culture course requirement.

# Geography • German Language and Literature

Maxwell Becton College of Arts and Sciences  
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## FREN4001

3 Credits

### Senior Seminar

A seminar for seniors, the course focuses on writing and research in French themes. Students are required to write a mini thesis and make an oral presentation in class. Prerequisite: FREN2003 French Conversation I.

## Geography

### Department of Social Sciences and History

## GEOG1102

3 Credits

### Geography and World Issues

This is an introductory course in geography, a discipline that examines the relationships between and among people, places, environments and cultures. The course covers a range of concepts that will enable students to engage critically with geography as an academic discipline. The class interrogates the geographic aspects of several important contemporary world issues like global connectivity, human migration, citizenship, cultural identity, urbanization, economics and politics.  
*Spring, Fall*

## GEOG1111

3 Credits

### Economic Geography

This course serves as an introduction to the core principles, theories and histories of economics, with specific attention to the issues that shape the spatial contours of the global economy. The class will work to develop a basic understanding of contemporary public debates about economic policy and explore the relationships between spaces, labor and markets. By the end of the semester, the class will have engaged with concepts like globalization, austerity and neoliberalism and studied the often-conflicting roles of economic actors like states, producers and consumers.  
*Spring*

## GEOG2500

3 Credits

### Global Development: Geographies of Wealth and Poverty

This course provides an introduction to the multifaceted process of social, cultural and political-economic change commonly known as “development.” The class will ask why, for example, certain regions of the world collectively known as “developing countries” or “the third world” have come to experience conditions of crushing poverty while other areas have prospered. In engaging with these types of issues, the class will examine the relationships between rich countries and poor, and interrogate the ways in which the links between different parts of the world have changed over time.

## GEOG2600

3 Credits

### Urban Geography

This course will serve as a geographical introduction to the history, theory, form and function of cities. In the past decade, the number of people living in cities has surpassed the world’s rural population. Demographers speculate that cities will account for all global population growth over the next 50 years as people continue to leave rural areas for urbanized life. Most of these changes are happening in the developing world, marking a globalized landscape no longer exclusively defined by places like New York or Paris, but also by “third-world” cities like Lagos, Mumbai and São Paulo. As sites of economic production, spaces of cultural and artistic expression and places where inequality is often rendered most visible, cities pose new challenges and offer opportunities for governments, communities and individuals the world over. The class will employ a number of different vantage points and disciplinary lenses in order to interrogate these exciting and complex urban landscapes.

## GEOG2700

3 Credits

### Environmental Geography: Nature, Power and Society

This course critically examines environmental transformations that arise from the complex interactions between natural systems and human activities. The pursuit of knowledge about natural resources and ecological systems is a scientific enterprise, yet addressing questions about the production, consumption, distribution, worth, degradation and preservation of these resources is a historically, politically and economically specific endeavor. The course goal is to encourage students to develop an appreciation of environmental conditions in their historical and political context.

## GEOG3050

3 Credits

### Surveillance and Security

Recent revelations about data collection by actors as varied as the National Security Agency and Facebook have challenged many of society’s most basic beliefs about power and privacy. It is increasingly clear that bodies, images and words are ceaselessly tracked, sorted, profiled, stored in databases and recalled by algorithms — all in the name of a loosely defined concept called “security.” In this class, students will interrogate these uneasy relationships between surveillance and security, looking at both state-surveillance practices as well as visual practices aimed at monitoring the state. By engaging with a broad array of media — academic research, social theory, television, film, fiction — students will debate the role of surveillance in generating security, but also focus on the ways that broad data collection can actually enable populations

to act in new and beneficial ways. (Equivalent to CMLGY3030 Surveillance and Security.)

## GEOG3040

3 Credits

### Capture and Control: Geographies of Detention and Incarceration

Modern democratic states often rely on practices of detention and incarceration in order to demonstrate (and increasingly, to circumvent) the power of the rule of law. As a result, international and domestic detention spaces like refugee camps, jails and for-profit prisons, war prisons, black sites, migrant detention islands, border checkpoints and protest camps are utilized in an ever-expanding number of spatial, legal and political contexts. In this course, students will explore these spaces and engage in a detailed historical and theoretical investigation of the complex and often contradictory processes that produce them. (Equivalent to CMLGY3040 Capture and Control.)

## German Language and Literature

### Department of Literature, Language, Writing and Philosophy

## GERM1001, GERM1002

6 Credits (3 Credits Each Semester)

### Beginning German I, II

An introduction to the language with practice in reading, writing and conversation. Corequisites: GERM1007 German Practicum I and GERM1008 German Practicum II.

## GERM1007

1 Credit

### German Practicum I

This one-credit course is linked to GERM1001 Beginning German I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: GERM1001 Beginning German I.

## GERM1008

1 Credit

### German Practicum II

This one-credit course is linked to GERM1002 Beginning German II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: GERM1002 Beginning German II.

## GERM2005

3 Credits

### German Conversation I

Course focuses on conversation through writing, reading, literature and grammar. GERM2003 German Conversation I and GERM2004 German Conversation II may be taken in any order.

# Government and Law

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## GERM2004

3 Credits

### German Conversation II

This course reviews important grammar topics and discusses contemporary issues in Germany. GERM2003 German Conversation I and GERM2004 German Conversation II may be taken in any order.

## GERM3007

3 Credits

### German Culture and Civilization

This bilingual course introduces key topics in German history, politics, arts and literature as well as the sciences. It will also address contemporary issues in German culture.

# Government and Law

## Department of Social Sciences and History

## GOVT1000

3 Credits

### American Government and Politics

Structure and function of American national government; roles of interest groups and political parties, voting behavior, powers of president, Congress, bureaucracy and federal judiciary. *Fall, Spring*

## GOVT1100

3 Credits

### Global Politics

This course introduces students to two dimensions of world politics: the domestic politics of countries outside the United States and interactions between countries. Topics covered include states and the international system, regimes, identity, democratic and nondemocratic political institutions and change, war, international political economy and trade, human rights and international law, transnational problems and globalization. The course explores these themes through an examination of prominent theories and case studies.

## GOVT1120

3 Credits

### Comparative Government

Analysis and comparison of contemporary political institutions and processes of selected countries.

## GOVT1200

3 Credits

### Introduction to Law

Overview of substantive and procedural law, and scholarly research on legal behavior and institutions. Course emphasizes the contemporary U.S. legal system but includes discussion of comparative and historical issues.

## GOVT1850

3 Credits

### Playing Politics

Politics can be conceptualized as a “game,” a situation of strategic interaction between two or more players. In this course students adopt the perspective of different political actions and actually play important political games — elections, campaigns, state formation, forming a coalition government and more.

## GOVT2010

3 Credits

### The Congress

Organization, political leadership and procedures of each house of Congress; the committee system; proposed congressional reforms.

## GOVT2015

3 Credits

### Campaigns and Elections

Introduction to and survey of election laws including ballot-access regulation, campaign finance and structures of primary elections; polling; advertising; the role of parties; and media relations.

## GOVT2020

3 Credits

### The American Presidency

Roles and functions of president, Cabinet, executive agencies; relations with Congress.

## GOVT2030

3 Credits

### The Supreme Court

The Supreme Court of the United States has emerged as the most powerful tribunal in the world. It plays a major role in resolving conflicts, making policy and developing the rule of law. This class examines how history, theory, social science research, jurisprudence, public opinion and a range of social and political forces help us in understanding why and how the Court is a major force in American politics. (Equivalent to CMLGY2030 Supreme Court.)

## GOVT2045

3 Credits

### Public Opinion

Explores the nature of public opinion and its connection to survey research, mass media influence and public policymaking, as well as the psychology of opinion holding and the role of public opinion as a mechanism of democratic linkage.

## GOVT2050

3 Credits

### President and Congress

The relationship between the two branches of government in the policy-making process. Why do presidential initiatives succeed or fail? What are the sources of presidential and congressional influence in the policy process?

## GOVT2070

3 Credits

### Women and American Politics

This course examines the participation of women in American political life. It will analyze the role of feminism in altering women’s public roles in historical and contemporary contexts, women’s participation in electoral politics and the role of women and their influence as officials within governing institutions.

## GOVT2071

3 Credits

### Gender and Public Policy

This course examines how women are treated by the law with respect to public policies that include, but are not limited to, workplace discrimination, reproductive rights and domestic violence. The work of feminist legal theorists will frame examinations of the historical, current and future development of case law relating to women and gender in American public policies.

## GOVT2120

3 Credits

### Globalization and Its Impact on the State

The effect of globalization on the political organization of modern states, with special emphasis upon the developing world.

## GOVT2130

3 Credits

### International Relations

Theories and problems of international politics and foreign policy.

## GOVT2230

3 Credits

### Judicial Process

Students will be introduced to the litigation process, including basic evidentiary rules, courtroom procedures and trial advocacy. Students will use this knowledge to prepare and conduct a simulated trial in which they serve as attorneys and witnesses.

## GOVT2281

1–3 Credits

### Mock Trial I

Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills.

## GOVT2282

1–3 Credits

### Mock Trial II

Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills from GOVT2281 Mock Trial I. Prerequisite: GOVT2281 Mock Trial I.

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## GOVT2283

1–3 Credits

### Mock Trial III

Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills from GOVT2282 Mock Trial II. Prerequisite: GOVT2282 Mock Trial II.

## GOVT2284

1–3 Credits

### Mock Trial IV

Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills on an advanced level. Prerequisite: GOVT2283 Mock Trial III.

## GOVT2500

3 Credits

### Citizenship, Service and Civic Engagement

This interactive course will offer students the skills to participate in a democratic society through education and direct service. Students will engage in an experiential-learning process whereby they work collaboratively to identify a problem, evaluate solutions and create an action plan for change. The course will address such key concepts as tracing the history of civic engagement in the United States, critically analyzing the methods to effectuate change in a democratic, pluralistic society and learning about the various levels of government. Local and state policymakers will supplement the course through in-person presentations.

## GOVT2400

3 Credits

### Political Ethics

This course surveys and critically examines the dominant approaches to political ethics, including deontology and rights, consequentialism and utilitarianism and contemporary critiques of liberalism. Students will explore the substance and implications of these approaches in applications to contemporary ethical and political problems and questions.

## GOVT2500

3 Credits

### Social Analysis

Theory and method of the study of politics, research designs, theory building, techniques of data collection and analysis.

## GOVT2520

3 Credits

### Qualitative Research Methods

This course provides an introduction to the theories and methods underlying modern social science research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own projects using a variety of qualitative and quantitative

techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

## GOVT2526

3 Credits

### Polls and Surveys

How to comprehend, evaluate, construct and conduct public opinion polls as well as surveys of special populations.

## GOVT2810

3 Credits

### Gender, Film and History

The course explores the representation of women, gender roles and sexism from the advent of the motion picture to the present. The class will ponder the benefits and limitations of the film medium for illustrating gender issues and will consider how portrayals of gender in film have changed over time. Whether films merely reflect existing attitudes toward gender or help shape those attitudes will also be explored. The course will consist of film viewings, discussions, lectures and readings. Historical periods covered in the course will vary. (Equivalent to HIST2322 Gender, Film and History.)

## GOVT3015

3 Credits

### Political Parties and Interest Groups

Interest group membership, structure and impact on public policy; components of American political parties, party in the electorate, party organization, party in office.

## GOVT3040

3 Credits

### Politics and the Media

The course will examine the relationship between the mass media and government. It will consider imperatives the media will follow in choosing to run particular stories, and how government seeks to take advantage of those imperatives to influence the media. Finally, the course will investigate how the media try to arouse public opinion in order to influence government policy.

## GOVT3060

3 Credits

### Political Behavior

Impact of public opinion, voting, protests on public policy.

## GOVT3120

3 Credits

### Dictators and Democrats

Compares the processes of political change from authoritarian to democratic regime in Southern

Europe, Latin America, Eastern Europe, as well as South Africa since the mid-1970s. Emphasizes analysis over description.

## GOVT3121

3 Credits

### Nationalism and Ethnic Violence

This course provides students with a broad overview of the major theories of nationalism, paying particular attention to ethnic violence and conflict. Emphasis is on the critical evaluation of different theories of both nationalism and ethnic conflict, with case studies illustrating the competing theories.

## GOVT3122

3 Credits

### Rebels and Revolutionaries

This course examines multiple forms of violent political conflict — from riots through rebellions and civil wars to revolution. The class will do so from a variety of approaches, including economics, political, psychological and sociological, and a variety of methods (qualitative case studies, formal modeling, quantitative analysis, computer simulations). The overarching goal, however, is singular: to assess the various approaches, methods and theories in terms of their ability to account for the emergence, duration and outcomes of violent political conflict. The class will compare cases from across the globe and through time, from classic social revolutions in France, Russia and China, through riots in the U.S. and India and civil war in Greece to rebellions in Ukraine and Syria.

## GOVT3150

3 Credits

### Terrorism and Counterterrorism

This course examines an important problem: terrorism and how to respond to it. In order to better understand terrorism, the class will explore who commits terrorism when and why, who gets targeted and why terrorist groups decline. It will also survey different approaches to combating terrorism and assess their efficacy. The approach to both will be theoretical and empirical, and readings and assignments reflect a wide diversity within each: from detailed case studies to Large-N quantitative analyses, from formal models to exploration of several data sets.

## GOVT3200

3 Credits

### American Constitutional Law

Development, scope and role of judicial review, problems of federalism, civil rights and civil liberties.

*Fall*

## GOVT3210

3 Credits

### Civil Liberties and Civil Rights

Analysis of Supreme Court decisions concerning speech, press, religion, rights of women, racial

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discrimination and affirmative action. (Equivalent to CMLGY3307 Civil Liberties and Civil Rights.)

## GOVT3220 3 Credits

### Criminal Law

A basic introduction to criminal law in the United States. Emphasis is upon social factors, norms, values and social policy considerations that shape modern criminal law. Subject areas include issues such as the justification of punishment, the elements of just punishment and the death penalty as well as the study of substantive laws of homicide, rape and other criminal acts. Attention is also given to the emergence of international criminal law and the punishment of war crimes. (Equivalent to CMLGY2333 Criminal Law.)

## GOVT3230 3 Credits

### International Criminal Law

A review of the key concepts, processes, institutional and organizational components of the international criminal legal system. Problems to be analyzed include terrorism, crimes against humanity and war crimes, piracy, drug trafficking, trafficking of women and children. The course examines the foundations and justifications of the establishment of the mechanisms of international criminal law, the relationship between treaties and custom, the problems of sovereignty and the use of force, the emergence of international tribunals and courts for the trying of offenders.

## GOVT3240 3 Credits

### Law and Society

Law as a determinant of social control and change. Analysis of legal systems and their administration, with special emphasis on law affecting the poor.

## GOVT3800 3 Credits

### Current Events Seminar

This course is designed to link current events in the United States and international political systems with political theory and contemporary research in political science and related disciplines. Students will make use of a variety of news media, including written, videos and podcasts on a weekly basis to inform themselves about current events in the political system, then combine these with readings from scholarly research to understand what's really driving politics in the U.S. and around the world. Students will discuss these events — and linkages to the scholarly reading — in seminar-style class meetings.

## GOVT3841 3 Credits

### Torture

This course explores a wide range of questions about a particular form of political violence practiced by many states: torture. Examining state-sponsored torture from empirical, normative and analytical perspectives over time and across political space, the class explores the what, why, when, where, how and who of torture. (Equivalent to CMLGY3841 Torture.)

## GOVT3851 3 Credits

### Monsters and Bad States

An exploration of political and social nightmares and dreamscapes, drawing on literature, political theory and contemporary policy and public affairs.

## GOVT4200 3 Credits

### The Constitution

In this class, students will examine the Constitution from the perspective of a political architect or framer — someone actually responsible for designing and maintaining a polity. The class will supplement (and transcend) the traditional emphasis on the Constitution as supreme law and as a text that courts alone should consider. Instead, students look at the Constitution as a dynamic blueprint for achieving certain aspirations, a “machine that would go off itself.” The class will also evaluate the Constitution as a source of American values, a basis for institutional conflicts and a touchstone for political and social life.

## GOVT4220 3 Credits

### Advanced Criminal Law

This seminar offers an in-depth analysis of recent scholarship and emerging issues related to contemporary and enduring issues in criminal law. Students should have taken GOVT3220 Criminal Law or have a good working knowledge of basic criminal law before taking this class. Prerequisite: GOVT3220 Criminal Law.

## GOVT4498 1–3 Credits

### Internship in Government and Law

Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, University course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

## GOVT4499 1–3 Credits

### Internship in Government and Law

Integration of classroom study with specific planned periods of supervised learning in paid

and relevant employment experiences. Co-op education combines learning on the job, University course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

## GOVT4551 3 Credits

### Game Theory

This course is an introduction to some basic concepts in non-cooperative game theory and their application to a range of problems in several social science disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus, MATH1126 Contemporary Mathematics, MATH1128 Mathematical Methods or higher.

## GOVT4552 3 Credits

### Agents in the Matrix: Creating and Analyzing Agent-based Models

This course introduces students to a powerful transdisciplinary computational for exploring complex systems; a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus, MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods. (Equivalent to CMLGY4845/ECON4845 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

## GOVT4590 1–3 Credits

### Faculty Research

Faculty-student research on faculty projects.

## GOVT4700 3–15 Credits

### Washington Center Internship

This course is a one-semester internship in Washington, D.C., through the Washington Center Internship Program. Students may register for 3 to 15 credits.

## GOVT4800 3 Credits

### Independent Study in Government and Law

Independent study under the direction of a specific faculty member after consultation with the department chairperson.



# History

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**GOVT4801**

3 Credits

**Independent Study in Government and Law**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**GOVT4900**

3–12 Credits

**Faculty Research**

Faculty-student research on faculty projects.

**GOVT4901**

3–12 Credits

**Faculty Research**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**GOVT4902**

3–12 Credits

**Faculty Research**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**GOVT4999**

3 Credits

**Senior Thesis**

In this capstone course, students select a research topic in consultation with an adviser, conduct the research and produce a paper and oral presentation.

## History

### Department of Social Sciences and History

**HIST1150**

3 Credits

**The United States to 1877**

A survey of American history from the earliest Colonial times through the end of Reconstruction. The course cannot be counted toward the history major.

*Fall***HIST1151**

3 Credits

**The United States Since 1877**

A survey of American history from Reconstruction to the present. This course cannot be counted toward the history major.

*Spring***HIST1150**

3 Credits

**World History I**

A survey of world history from the earliest civilizations to the age of increased global contacts. This course will cover a variety of themes like the importance of agriculture, the rise of civilizations, birth of arts and the spread of world religions.

**HIST1151**

3 Credits

**World History II**

A survey of the development of the modern world from about 1500 to the present. In particular, this course will explore the challenges emanating from an increasingly interconnected world during this period.

**HIST1170**

3 Credits

**European History to 1750**

Survey of European history from the fall of the Roman Empire to 1750.

**HIST1171**

3 Credits

**European History from 1750**

Survey of European history from the Age of Enlightenment and Revolution to the present.

**HIST2100**

3 Credits

**Medieval History in Film**

Thematic treatment of the history behind cinematic portrayals of Europe in the Middle Ages, as well as what these films say about the societies that produce them.

**HIST2101**

3 Credits

**Warfare in Medieval Europe**

An examination of strategies and tactics of European militaries from late antiquity to the early modern era. Course also considers the broader social, political, economic and religious contexts in which medieval warfare took place.

**HIST2200**

3 Credits

**Europe in the Middle Ages**

An introduction to the social, religious, intellectual and cultural life of medieval Europe from 500 to 1563.

**HIST2201**

3 Credits

**Modern Germany**

An examination of Germany from the period of unification under Bismarck to the present time, with particular emphasis on the period of World Wars I and II, the Weimar Republic, Adolf Hitler and the rise of the Nazi party, the two Germanies of the postwar world and the recurrent "German question" of the present day.

**HIST2202**

3 Credits

**Introduction to African History**

Examines the history of Africa from the origins of man through the Atlantic slave trade, with a particular focus on the development of political, social and cultural institutions across the continent.

**HIST2205**

3 Credits

**Modern African History**

A survey of the continent from the end of the Atlantic slave trade through European colonization, two World Wars, independence, Cold War politics and the contemporary challenges of modernity. Note: meets culture requirement.

**HIST2225**

3 Credits

**Renaissance and Reformation**

An examination of Europe during the late Middle Ages, the artistic and cultural flourishings of the Renaissance and the Reformation with its religious wars. Includes emphasis on sources written and created during the period, as well as historians' assessments of their importance and impact.

**HIST2224**

3 Credits

**Age of Science and Enlightenment**

This course focuses on the period in European history from the time of Galileo and the Thirty Years War to the Age of Enlightenment. It will closely examine the foundation of the Scientific Revolution, the devastating effects of war on Europe from 1616–1648 and the history of the development of enlightened thought in Britain and continental Europe. The class will examine this historical period with an interdisciplinary thrust, using a broad range of materials and documents to enrich the students' understanding of a crucial period in European history.

**HIST2244**

3 Credits

**Islamic Empires**

This course examines the spread of Islamic culture and society specifically in the context of the large caliphates, dynasties and empires that dominate early Islamic history from the death of Muhammad to the Ottoman Empire.

**HIST2293, HIST2294**

3 Credits Each Semester

**Global Scholars Seminar I, II**

Combines academic training with special opportunities such as private briefings with United Nations ambassadors, trips to area museums and artistic events presenting works on many cultures.

**HIST2522**

3 Credits

**Gender, Film and History**

The course explores the representation of women, gender roles and sexism from the advent of the motion picture to the present. The class will ponder the benefits and limitations of the film medium for illustrating gender issues and will consider how portrayals of gender in film have changed over time. Whether films merely reflect existing attitudes toward gender or help shape these attitudes will also be ex-

# History

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plored. The course will consist of film viewings, discussions, lectures and readings. Historical periods covered in the course will vary. (Equivalent to GOVT2810 Gender, Film and History.)

## HIST2326

3 Credits

### The Medieval Castle

This course examines the medieval castle from a number of different angles, including the castle as a military instrument and as a hub of economic, social and religious activity. The class will consider historians' conflicting assessments of castles and will delve into primary-source materials describing the multiple layers of life in castle communities.

## HIST2346

3 Credits

### Birth of Modern America: 1877-1929

Covers the critical half-century between the end of Reconstruction in 1877 and the Great Crash of 1929, when the United States transformed from a largely rural-agrarian society into the world's leading urban-industrial power. Topics include: conquest and settlement of the West; mass immigration, urbanization and industrialization in the North; rise of Jim Crow in the South; populist and socialist protest movements; rise of corporate capitalism; progressive reforms; ascendancy of the "New Woman" and Harlem Renaissance; Prohibition and the "Roaring Twenties"; and emergence of the U.S. as a global power from the Spanish-American War through the First World War.

## HIST2348

3 Credits

### America in the Age of Reform: 1929-1968

This course covers four decades marked by rapid change and conflict at home and abroad. Topics include: origins of the Great Depression; New Deal reforms; American "Isolationism" and Neutrality in the 1930s; the Second World War; origins of the Cold War and decolonization and its conflicts in Korea, Cuba and Vietnam; baby boom and postwar consumerism; McCarthyism; racial and gender civil rights movements; the Great Society and Lyndon B. Johnson's "War on Poverty"; protests and counterculture of the 1960s; and the rise of the "New Right."

## HIST2349

3 Credits

### Contemporary America: 1968-Present

This course covers four decades marked by the aftermath and legacy of the tumultuous 1960s from the end of the Democratic majorities of Lyndon B. Johnson through the Rise of the New Right with Republicans Nixon, Reagan and the Bushes, but also the New Democrats under Clinton and Obama. Topics include: the pivotal 1968, 1980 and 2008 elections; the end of the

Vietnam War; Detente; Watergate; impact of Civil Rights Movements for African Americans, women and gays; suburbanization; urban decay and renewal; the New Immigration; the end of the Cold War and the rise of globalization with 9/11 and the 2008 financial crisis.

## HIST2350

3 Credits

### Colonial and Revolutionary America

The history of the American colonies from 1450 to the Revolutionary War and the subsequent problems of creating an American union.

## HIST2351

3 Credits

### The United States in the Early Republic

This course introduces the main themes and events from the earliest years of the new nation until about the mid-19th century. Among the topics explored are the first and secondary political party systems, gender and race, the development of market capitalism and its impact, the slave South, the westward movement and reform movement and abolitionism.

## HIST2352

3 Credits

### Civil War and Reconstruction

The rise of sectionalism, the election of Lincoln and the secession of the Southern states, the Civil War, Reconstruction and the return of Southern "home rule."

## HIST2359

3 Credits

### African-American History to 1877

This is the first of a two-semester course in African-American history. The course explores selected major developments; issues and interpretations unique to the past of Americans of African ancestry from the 17th century through the Civil War and Reconstruction. Among the topics explored are the African-American slave trade, the development of racism, free blacks, master-slave relations and black institutions.

## HIST2361

3 Credits

### African-American History Since 1877

This is the second of a two-semester course in African-American history. This course begins with the legacy of Reconstruction and continues with the Jim Crow laws. It covers the Booker T. Washington vs. W.E.B. Du Bois debate amid entrenched segregation; how the two World Wars raised expectations in the black community, as did *Brown vs. The Board of Education*; how the Civil Rights movement increased opportunity; a new debate between King and Malcolm X; and how, today, a middle class contrasts with the underclass.

## HIST2368

3 Credits

### Survey of India

Introduction to the vast panorama of Indian history, art, cultures, philosophies and politics from ancient through pre-Colonial times.

## HIST2370

3 Credits

### Comparative Revolutions

This course examines the "Age of Revolution" (circa 1776 to 1815) and carefully considers the major wars of independence and revolution that were so central to the era. The focus will be on the American, French and Haitian Revolutions, as well as the Latin American Wars of Independence. Special attention is paid to the interconnectedness of the major events, the origins and timing of the Revolutions and the social, political, racial and gender aspects of the "Age of Revolution."

## HIST2371

3 Credits

### History on Film: Britain

Many events in British history have been the basis or inspiration of great films. The politics, history and social forces that created these films; the accuracy of how the issues and events are portrayed; and how we regard the issues as time passes, will be the focus of this course. Examples will be taken from: the Church of England, British Colonialism, World Wars and the loss of Empire, War on the British Homeland, immigration, assimilation and the effects of Brexit. (Equivalent to CINE2371 History on Film: Britain.)

## HIST2400

3 Credits

### The Indian Ocean

Examines the history of the peoples and communities that ring the Indian Ocean — from east Africa to Saudi Arabia, India, Indonesia and Australia. This course will focus in particular on forces that have linked these societies such as trade, religion, migration, imperial ambition and independence.

## HIST2401

3 Credits

### Pacific Worlds

This course broadly covers the history of the diverse cultures connected to the Pacific Ocean, including the changing interaction between East Asia, the Pacific Islands, Australia and the Americas from the emergence of the early modern world in the 15th century through the era of globalization today.

## HIST2402

3 Credits

### Atlantic Worlds

This course explores the history of interaction between peoples located around the Atlantic

Ocean. From Columbus through colonization, the slave trade, independence and finally globalization, this course will explore a variety of themes (such as the origins of the blues) as rich and varied as the people who live in and around the Atlantic.

**HIST2403****3 Credits****Mediterranean Worlds**

Covers themes, people and cultures of the Mediterranean basin from the ancient world up to approximately 1500. Considers the Mediterranean as both a highway and a barrier to human interactions and the spread of ideas.

**HIST2404****1 Credit****Pacific Worlds Study Abroad**

Optional short-term study abroad to East Asia for HIST2401 Pacific Worlds. This is a required fall term corequisite offered with a study-abroad component over winter break.

**HIST2424****3 Credits****Western Front in World War I**

Summer course taught jointly at Becton College and Wroxton College with field study in England, France and Belgium. This course explores the role of mass, multimillion-man armies engaged along the 500-mile Western Front in World War I. Within 25,000 miles of trenches, a war of attrition generated casualties of an unprecedented magnitude, owing to the role of industrialization, militarism and nationalism.

**HIST2425****3 Credits****Western Front in World War II**

Summer course taught jointly at Becton College and Wroxton College with field study in England, France and Belgium. This course will explore the role of highly mechanized and aerial warfare in the German Blitzkrieg that conquered Western Europe from Norway to France in less than 11 weeks (thus breaking the strategy of trench warfare from World War I); the aerial bombardment of civilian targets with focus on the Battle of Britain; the fate of population in occupied Western Europe; the opening of the Second Front with D-Day invasion followed, by the 11-month campaign to V-E Day.

**HIST2443****3 Credits****New Jersey History**

The history of New Jersey from colonial times to the present.

**HIST2500****3 Credits****Medieval Maidens in the Movies**

An interdisciplinary, co-instructed examination of women in medieval Europe and of their portrayals in film. This course considers not only

the history of the women depicted in movies but how historiography, conventions of the film medium and women's studies help illuminate these representations.

**HIST2501****3 Credits****Colonial Latin America**

Covers Latin America from late pre-Columbian times, the European conquest of the region, the key features of Spanish and Portuguese colonization and the issues that lead to independence. Includes discussion of indigenous civilizations; the encounter of the Europeans with indigenous Americans and enslaved Africans; the introduction of European social and political institutions; the economic impact of mining and plantations; and the pivotal role of the Catholic Church.

**HIST2502****3 Credits****Modern Latin America**

Covers Latin America from the independence movements to the present. Includes the impact of independence and the struggle to build stable nation states; the continuing friction between Church and state; urbanization and industrialization; modernization efforts and the challenge of populist and socialist movements; key 20th-century revolutions and Mexico and Cuba; the pervasive role of military dictatorships; democratizations; and contemporary challenges in the 21st century.

**HIST2503****3 Credits****Indigenous Peoples of Latin America**

This upper-division course focuses on the history of indigenous peoples of Latin America from the pre-Columbian period until the present. The course explores the social, economic, political and cultural transformations affecting the native societies of Mesoamerica and the Andes, with a focus on their strategies for survival and socio-political inclusion. Part I explores the American civilizations prior to European invasion and colonization. Part II examines the creation of the "Indian" in the context of the imposition of colonial rule from the late 15th to the early 19th century. Part III investigates the reformulation of the indigenous peoples' status in the young Latin American republics and the restrictions created by new political elites to exclude them from political participation. Part IV discusses indigenous peoples' activism, main challenges and successes from the second half of the 20th century until the present.

**HIST2504****3 Credits****Gender and Race in Latin America**

This course introduces students to the history of gender and race in Latin America from colonial times to the 21st century. Topics include the continuities and changes that have affected the lives of women and men from diverse racial, cul-

tural and class backgrounds more than 500 years since the Spanish conquest. This course will focus especially on negotiation, resistance and agency to explore how gender roles and racial identities have been imposed but also re-defined.

**HIST2506****3 Credits****Pre-Columbian Americans**

This course focuses on the history of indigenous peoples in the Americas before the arrival of Europeans in 1492. It explores the social, economic, political and cultural transformations affecting the societies of North, Central and South America with an emphasis on the civilizations of Mesoamerica and the Andes. The course is divided into three parts, which examine each stage in the development of pre-contact societies: Lithic Stage, Archaic Stage and Post-Archaic Stage. The main objective of this course is to present the history of these societies through their own perspective while highlighting their contributions and legacy.

**HIST2630****3 Credits****U.S. Women's History to 1877**

Cultural, social and political developments in the roles of women from Colonial times through Reconstruction. Includes comparison based on gender, race, religion, class, education and era.

**HIST2631****3 Credits****U.S. Women's History Since 1877**

Examination of the lives of women in America from Reconstruction to the present. Lectures, primary source readings, secondary source readings and research assignments will show the ways in which social, political and economic conditions shaped women's roles and expectations. Special consideration is given to the diversity of women's experiences in America, and attention is paid to race, class, age and sexuality.

**HIST2701****3 Credits****Modern Mexico: 1876–Present**

This course examines the history of Mexico's "long 20th century" from the modernizing dictatorship of Porfirio Diaz (1876–1910) to the present. Bookmarked by two periods of globalization — one that began at the end of the 19th century and another that commenced a century later — the course provides students with an understanding of the various social, political, economic and cultural processes that shaped Mexico's transformation into a modern nation-state and "middle power" on the global stage. Through an examination of practices of nation and state building, revolution and reaction and the transnational ebb and flow of goods, people and ideas, students will gain an understanding of the diversity of forces that shaped and continue to shape modern Mexico.

# History

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## HIST2900

3 Credits

### Premodern War in Video Games

The gaming industry continues to produce numerous video packages based on ancient and medieval warfare. These games are wildly popular software packages, especially among college-age students. They are therefore a powerful “hook” to draw society’s attention to material that might otherwise seem obscure or unimportant. But how true are these virtual depictions to the historical people, societies and events they portray? This course approaches such works with the aim of determining historical accuracy or lack thereof and determining what these games say about the societies that produce and find pleasure in them.

## HIST2951

3 Credits

### Spain and the United States Since 1898

Through short-term study-abroad to Spain, this course will look closely at the relationship between Spain and the United States — from the Spanish-American War, the Spanish Civil War and its impact on U.S. neutrality and World War II, the Franco dictatorship, to Spain’s postwar entry into NATO and democracy in the 1970s. The experiential learning will look at relevant sites to include the National Army and Naval Museums, memorials of the Spanish Civil War and major art museums and other historic sites. Note: This course is associated with the 3-credit course HIST3351 U.S. as a Global Power. Students are encouraged, but not required, to take both courses.

## HIST3008

3 Credits

### Italian History and Art History

A course about the fundamental concepts of Italian history and art history, designed specifically to take advantage of the resources of the culturally rich city of Bergamo. The course is co-taught by a historian and an art historian in English. Course takes place in Italy and is offered at no cost to FDU students as long as they register in one of the other courses offered in the study-abroad in Italy program. (Equivalent to ARTH3008/ITAL3008 Italian History and Art History.)

## HIST3250

3 Credits

### Crime and Punishment in South Africa

This course examines the complex history of criminality and state response in the African subcontinent. Although the class will examine the nature of precolonial crime and punishment, the focus of the course will be on the colonial period and the apartheid era that followed. Because of the ugly realities of race and class, dis-

tinguishing what was, or was not, a criminal act in southern Africa is not as easy as it might seem at first. Nelson Mandela served nearly his entire adult life in prison, while Cecil Rhodes, the founder of De Beers diamonds, strong-armed his company into a monopoly and became prime minister of the Cape Colony. Rogues, rebels, shebeen queens, *tsotsis* (gangsters), highway-men and corporate raiders all make appearances in this course that mixes traditional lectures with seminar-style discussions. (Equivalent to CMLGY3250 Crime and Punishment in South Africa.)

## HIST3251

3 Credits

### Crime and Punishment in Latin America

This upper-level course examines the changing cultural paradigms about order, crime, justice and punishment in Latin America and their impact on society and institutions. Chronologically, the course will be divided into four main sections: pre-Hispanic notions of social control and order (until the 1500s), the colonial foundations of racial and religious criminalization and repression (1500s to early 1800s), the early republican state and the modernization of the means of social control (mid-1800s to the 1930s) and crime and punishment in the 20th and 21st centuries (1930s to the present). Particular attention will be given to topics such as social-control policies, the police, narco-trafficking and crime, political crimes, genocide and justice. (Equivalent to CMLGY3251 Crime and Punishment in Latin America.)

## HIST3316

3 Credits

### The History of Sexuality in the United States

Sex is often thought of as an unchanging need behavior or instinct — an experience without history. And yet, even in the recent past, sexual desires, activities, identities, attitudes and technologies have undergone profound transformations. This course will examine the last 400 years of sexuality in the regions that now make up the United States. Among the topics covered are reproduction, fertility, birth control and abortion, prostitution, same-sex and cross-sex sexualities, interracial sex and sex as violence.

## HIST3321

3 Credits

### The Roman Republic

An examination of ancient Rome from its origins to the beginning of the Empire (c. 500–14 BCE). Special attention will be given to social, cultural, political and legal developments through the use of both primary and secondary sources.

## HIST3322

3 Credits

### The Roman Empire

Roman civilization from the creation of the imperial system by Augustus to its collapse in the West under the impact of the Germanic invaders.

## HIST3324

3 Credits

### Medieval Religion

Examines various aspects of medieval history in more depth than allowed by a survey course. Topics will change each time the course is offered. Examples of possible topics include, but are not limited to, The Family in Medieval Law and Society Medieval England; The Church in Medieval Europe; and War and Society in the European Middle Ages. Emphasis on research and writing.

## HIST3325

3 Credits

### 19th-century Europe

This course will cover European history from the end of the 18th century until the beginning of the 20th century. Major topics will include the French Revolution, the Napoleonic Wars, The Congress of Vienna, The Crimean War, the Unification of Italy and Germany and the growth of imperialism. In addition, economic and political topics will include the effects of industrialization, the emergence of socialism and the spread of democracy. Social and cultural topics will include the Enlightenment, Romanticism, Realism, Materialism and the notion of progress. These subjects will be analyzed through a combination of primary and secondary sources.

## HIST3347

3 Credits

### History of Modern China

An introduction to the history of China, focusing on the 20th century, but also providing background to its 4,000-year-old culture; the Communist Revolution and the political system so long under the influence and domination of Chairman Mao Tse-tung; and the forces of “hard line” Communism that are restraining the powerful drive for democratization.

## HIST3350

3 Credits

### U.S. as a Continental Power, 1607–1898

This course explores the expansion of the United States from a British-settlement colony to that of a national continental empire. Topics include the conquest and settlement of Native American lands, negotiations and conflicts with neighboring powers and competing visions over expansion as related to slavery and trade.

**HIST3351****3 Credits****U.S. as a Global Power**

Narrative examination of U.S. foreign policies from the Spanish-American War to the Wilsonian principles of 1918, idealism and isolationism in the '20s and '30s, the crusading year of World War II and the Cold War and culminating in the confusing and prosperous first decade of the post-Cold War era.

**HIST3358****3 Credits****United States Constitutional History**

Explores the framing of the Constitution, antecedents of American common law, the development of judicial review and the various intellectual leaders and eras of the court in both the 19th and 20th centuries.

**HIST3367****3 Credits****Public History**

The study and practice of presenting history to a public audience (rather than to an academic audience of students or experts). Focus is on museum exhibits, historic houses, sites, documentary films, oral history and interactive media.

**HIST3368****1 Credit****Public History Field Experience**

This course provides students an opportunity to study public history in the field. The class will conduct a number of onsite visits to talk with practitioners about the implementation of the methodologies discussed in class. This unique opportunity can introduce students to a career in public history, provide a model for incorporating this practice into their own classrooms or simply make them better participants in future visits to these venues.

**HIST3400****3 Credits****Colonial Epidemics**

This course examines the epidemics that accompanied the process of European colonization after the 15th century and the social, religious, cultural and political responses of local people to these plagues. In addition, the course will examine how colonial diseases shaped European ideas of the colonial project, of race and of the environment.

**HIST3405****3 Credits****Explorers and Exploration**

This course will look at selected explorers and their travels from antiquity to the early 16th century. Reasons for exploration, the means of doing so and the effects of cross-cultural contacts will be considered. Heavy emphasis will be placed on analysis of the explorers' own travel descriptions.

**HIST3666****3 Credits****Witches and Warlocks in the West**

An interdisciplinary course that analyzes historical and literary texts and films that represent the idea of witchcraft through the ages, from St. Augustine to the 20th century.

**HIST3802****3 Credits****Historical Methods**

This course is designed for history majors. It aims to prepare students to "do" history and acquaint them with the various approaches and methods that historians use in writing history.

**HIST4001****3 Credits****The Black Death**

History and historiography of the cataclysmic disease that wiped out nearly a third of Europe in the 14th century, as well as precursors and later waves of illness. Implications for modern epidemics will also be considered. Course will include significant use and analysis of primary source materials. Prerequisite: HIST3802 Historical Methods or permission of instructor.

**HIST4008****3 Credits****The Military Revolution**

The term "military revolution" is used by historians to denote the changes to warfare and society from about 1500–1800. This course will consider the effects that gunpowder weaponry, sailing ships, military professionalization and economic objectives had in changing Europe and the world. Heavy emphasis will be placed on historians' debates over the military-revolution model and on primary-source analysis. This is not a course on the American Revolutionary War.

**HIST4200****3 Credits****Colonial Epidemics**

Seminar that explores the connection between colonization and disease from the horrific destruction of Native American communities at the hand of smallpox, to the more subtle effects of syphilis in India or tuberculosis in South Africa. Focus will be on how epidemics re-ordered colonized societies and shifted power to the colonizers.

**HIST4205****3 Credits****Seminar: Race and Empire**

This seminar examines the critical role of race in the global context of imperialism, from the age of high imperialism in the 19th century through the age of decolonization in the 20th century. Prerequisite: HIST3802 Historical Methods or permission of instructor.

**HIST4498****1–3 Credits****Internship in History**

Interning in public history: museums, historical parks and societies, archival sites. Combines learning on the job, University course work and career-development skills. Students may complete more than one internship for credit.

**HIST4500–HIST4505****3 Credits****Great Issues Colloquium**

Available to well-motivated students, this interdisciplinary course takes up an important societal or global question, requires broad reading and encourages active participation in discussion and debate. The topic and professor will change each time the course is offered.

**HIST4700****3–15 Credits****Washington Center Internship**

This course is a one-semester internship in Washington, D.C., at The Washington Center internship program. The main program offers student internships in many areas including politics, public administration, health and education, human services, science education and the arts. Students are assigned a program supervisor, take one of many classes offered by the center and participate in the center's activities.

**HIST4800****1–3 Credits Each Semester****Independent Study in History**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

**HIST4900****3–12 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**HIST4901****3 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**Honors****University Honors Program****HON2000****0 Credits****Honors Study-abroad Experience - Wroxton**

Study-abroad experience that includes travel to Wroxton, England, for a seminar/lecture program. Topics vary by semester/year. Additional cost may apply.

# Humanities • Italian Language and Literature

Maxwell Becton College of Arts and Sciences  
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## HON3301

3 Credits

### Junior Honors Seminar

Introduction to the methods of research; literature searches using computer databases; proposal development; organization and presentation of research data; development of the honors thesis. HON3301 Junior Honors Seminar is a University-wide course. For other University Honors Program courses please contact the University Honors Program director on your campus.

For requirements in Becton College Honors, see page 56.

## Humanities

*Department of Literature,  
Language, Writing and Philosophy*

## HUMN2015

3 Credits

### Ways of Seeing: Visual Intelligence and Creative Writing

This course follows ARTH1110 Life of the Contemporary Artist in the sequence for students in the Arts Learning Community. Using contemporary and classic art and writing inspired by art, this course is a multifaceted exploration of the ways people see. Among other things, students will learn how teaching police (and others) to look at art has led to solving crimes in the real world; how learning such techniques of looking at and understanding art may enrich one's life, academic experience and career; how to express oneself in a variety of ways; how contemporary and earlier art have been used to educate, create social change, religious change and so on. Students will write creative and critical pieces and will look at a great deal of remarkable and important work. Prerequisite: ARTH1110 Life of the Contemporary Artist.

## HUMN2201

3 Credits

### Humanities Seminar I

This seminar introduces students to the concept of the humanities and focuses on the ways in which different disciplines explore a period or theme. Students will learn how to apply interdisciplinary approaches to their studies. Should be completed by humanities majors prior to the first semester of their junior year.

## HUMN2212

3 Credits

### Visionary Artists and Writers

This course will examine a number of artists and writers from various traditions who lead us far beyond the boundaries of geography and reason to explore religions that cannot be visited by any other means than the imagination. Students will become familiar with various religions and belief traditions — Jewish, Hindu, Christian, Native

American, Muslim, Buddhist, etc. — from which such artists often spring while focusing on how they may be relevant to our real-world lives. The class will also discuss the psychology of unusual states of consciousness. The artists will include Rumi, Lalla, Mirabai, Rimbaud, William Blake, Tolkien, Madge Gill, Henry Darger and many others. Students will write both creatively and critically in response to art.

## HUMN2500

1 Credit

### Research in Humanities

Introduction to interdisciplinary research in the humanities.

## HUMN3211

3 Credits

### Humanities Seminar II

This senior seminar will focus on a theme explored in depth from a variety of interdisciplinary perspectives.

## HUMN4498

3 Credits

### Internship

Practical experience working in a business, government or a nonprofit setting or in the publications field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

## HUMN4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## Italian Language and Literature

*Department of Literature,  
Language, Writing and Philosophy*

Note: Students may also take courses at the University of Bergamo, FDU's partner institution in Italy, in a semester-long stay or during the FDU summer study-abroad program (mid-May to mid-June).

## ITAL1001

3 Credits

### Beginning Italian I

An introduction to the language with practice in reading, writing and conversation. Corequisites: ITAL1007 Italian Practicum I and ITAL1008 Italian Practicum II.

## ITAL1002

3 Credits

### Beginning Italian II

An introduction to the language with practice in reading, writing and conversation. Prerequisite: ITAL1001 Beginning Italian I or departmental permission.

site: ITAL1001 Beginning Italian I or departmental permission.

## ITAL1007

1 Credit

### Italian Practicum I

This one-credit course is linked to ITAL1001 Beginning Italian I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ITAL1001 Beginning Italian I.

## ITAL1008

1 Credit

### Italian Practicum II

This one-credit course is linked to ITAL1002 Beginning Italian II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ITAL1002 Beginning Italian II.

## ITAL2003

3 Credits

### Italian Conversation I

A conversation course that focuses on grammar skills through a variety of readings. (ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II are not sequential.)

## ITAL2004

3 Credits

### Italian Conversation II

A conversation course that focuses on grammar skills through readings on contemporary issues. (ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II are not sequential.)

## ITAL2005

3 Credits

### Italian Cinema

The course will discuss the development of the Italian cinema from Neo-Realism to today, in particular dealing with Rossellini, Fellini, Desica, Bertolucci, Pasolini, Antonioni and Wertmueller. It is taught in English. (Equivalent to CINE2015 Italian Cinema.)

## ITAL2015

3 Credits

### Italian Film

Through the appropriate literature, the course examines the films of Roberto Rossellini, Vittorio De Sica and Michelangelo Antonioni (mainly) as true innovators of cinematic techniques, who led the way for filmmakers around the world since the end of World War II.

## ITAL2050

3 Credits

### Italian Romanticism and Risorgimento Through Literature, Art and Music

This course provides a broad historical perspective on Italian Romanticism and the Risorgimento. The focus will be on the role that literature

# Japanese Language and Literature

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(poetry and narrative), the visual arts and music have played in shaping Italian national and cultural identity in the first decades of the 19th century. All romantic “sister arts” contributed to the creation of new homes and techniques in an effort to establish a modern relation between passion and beauty.

## ITAL2501

6 Credits

### **Italian Culture and Civilization: Make in Italy:**

#### **Introduction to Entrepreneurship**

The entrepreneur is an agent of change and an innovator who seizes opportunities and needs in a wide range of fields. Radical and rapid changes in new technologies, such as information technologies, bio techniques, new materials, renewable energies and the opportunities coming from a globalized and interconnected economy encourage the establishment of startups ready to act in different sectors. Moving from an analysis of the specific features of “made in Italy” and of “family business” both at the core of the Italian economic system, the course develops the idea that entrepreneurial culture fosters innovation in all spheres. This is mainly lab-oriented and challenges students to explore innovative ideas of business and discover their entrepreneurial potential. At the end of the course, students will be able to: analyze the value of an entrepreneurial idea through different perspectives, know the tools needed to establish and develop a startup.

## ITAL3004

3 Credits

### **Italian Film and Culture**

Through a variety of texts (prose, poetry, film, art), this course surveys contemporary Italian social, political and cultural life from the fall of Fascism to the present. Among the topics examined are resistance, post-resistance, post-World War II reconstruction, economic boom, the Mafia, immigration and Berlusconi years. Taught in English.

## ITAL3007

3 Credits

### **Italian Culture and Civilization**

This bilingual course introduces key topics in Italian history, politics, arts, literature, as well as the sciences. It addresses contemporary issues in Italian culture.

## ITAL3008

3 Credits

### **Italian History and Art History**

A course about the fundamental concepts of Italian history and art history, designed specifically to take advantage of the resources of the culturally rich city of Bergamo. The course is co-taught by a historian and an art historian in English. Course takes place in Italy and is offered at no cost for FDU students as long as they register

in one of the other courses offered in the study-abroad in Italy program. (Equivalent to ARTH3008/HIST3008 Italian History and Art History.)

## ITAL3051

3 Credits

### **Italian Tragedy**

The course, taught in English, explores the evolution of Italian tragedy from Greek and Roman models to the 20th-century tragic-comedy of Eduardo de Filippo.

## ITAL3053

3 Credits

### **Creating a Nation**

Through an exploration of the arts, this course deals with the historical and cultural events that led to Italy's unification. It will focus on romanticism, Risorgimento, Scapigliatura, realism and the way opera helped create a national spirit. The course is taught in English. Note: meets cultural course requirement.

## ITAL3055

3 Credits

### **The Italian-American Experience**

This course examines key moments in the history of Italian immigration, settlement and integration in North America — from the end of the 19th century to today — through literature and film. Note: meets cultural course requirement.

## ITAL3056

3 Credits

### **Italy: Land of Migrations**

In the last two centuries, Italy has been the source of a large migration outward and, in recent years, the destination for a large migration forward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. Taught in English. (Equivalent to CINE3056/LITS3056 Italy: Land of Migrations.)

## ITAL3301

3 Credits

### **Italian Advanced Conversation**

Students read, view, write and converse about a wide variety of texts while acquiring advanced grammar skills — emphasis placed on oral communication. Prerequisites: ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II or permission of department chair.

## ITAL3390

3 Credits

### **Italian Mafia in Literature and Film**

The course examines the evolution of organized crime in Italy (termed Mafia, Cosa Nostra, Camorra, 'Ndrangheta, etc.) from its beginnings in the second half of the 19th century to the 21st century through the analysis of novels, films, newspaper articles and documentaries. (Equiva-

lent to LITS3390 Italian Mafia in Literature and Film.)

## ITAL3452

3 Credits

### **Writing in Italian**

Students read and write in a variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisites: ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II or permission of department chair.

## ITAL3501

3 Credits

### **Italian for Business**

Business and social situations are enacted in Italian. Business correspondence skills are developed.

## ITAL3502

3 Credits

### **Italian Translation**

This course focuses on translating written material.

## ITAL3666

3 Credits

### **Witches and Warlocks in the West**

This course focuses on the definition of who and what is a witch, both in Europe and North America, from the Middle Ages to the 20th century. (Equivalent to LITS3666 Witches and Warlocks in the West.)

## ITAL4800

1–6 Credits

### **Independent Study in Italian**

Independent study under the direction of a specific faculty member after consultation with the department chairperson. Limited to advanced courses.

# Japanese Language and Literature

## *Department of Literature, Language, Writing and Philosophy*

## JAPN1001

3 Credits

### **Beginning Japanese I**

An introduction to the language with practice in reading, writing and conversation. Corequisites: JAPN1007 Japanese Practicum I and JAPN1008 Japanese Practicum II.

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## JAPN1002

3 Credits

### Beginning Japanese II

An introduction to the language with practice in reading, writing and conversation. Prerequisite: JAPN1001 Beginning Japanese I. Corequisites: JAPN1007 Japanese Practicum I and JAPN1008 Japanese Practicum II.

## JAPN1007

1 Credit

### Japanese Practicum I

This one-credit course is linked to JAPN1001 Beginning Japanese I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: JAPN1001 Beginning Japanese I.

## JAPN1008

1 Credit

### Japanese Practicum II

This one-credit course is linked to JAPN1002 Beginning Japanese II providing additional reinforcement through exercises that focus on listening and speaking skills. Prerequisite: JAPN1007 Japanese Practicum I. Corequisite: JAPN1002 Beginning Japanese II.

## JAPN2001

3 Credits

### Intermediate Japanese I

With the basic knowledge acquired in JAPN1001 Beginning Japanese I and JAPN1002 Beginning Japanese II, students learn more advanced grammar and build skills by using these in practical situations with practice in oral communication, writing and reading. Mastering 120 basic Kanji is also a course goal. Prerequisite: JAPN1002 Beginning Japanese II.

## JAPN2002

3 Credits

### Intermediate Japanese II

This course is the continuation of JAPN2001 Intermediate Japanese I. The course focuses on learning more advanced grammar and mastering additional 130 Kanji. Students build stronger skills to use the acquired knowledge in a practical way with additional practice in conversation, writing and reading. Prerequisite: JAPN2001 Intermediate Japanese I.

## JAPN2003

3 Credits

### Japanese Conversation I

Course focuses on conversation through writing, reading, literature and grammar. JAPN2003 Japanese Conversation I and JAPN2004 Japanese Conversation II may be taken in any order.

## JAPN2004

3 Credits

### Japanese Conversation II

This course reviews important grammar topics and discusses contemporary issues in Japan. JAPN2003 Japanese Conversation I and

JAPN2004 Japanese Conversation II may be taken in any order.

## JAPN2505

3 Credits

### Writing and Conversation Through Japanese Culture

With this course, students are to develop their language skills in Japanese and gain an understanding of Japanese culture. Prerequisite: JAPN2004 Japanese Conversation II.

## JAPN2506

3 Credits

### Japanese Culture and Civilization

This course, taught in English, introduces key topics in Japanese history, politics, art and literature as well as the sciences. It will also address contemporary issues in Japanese culture.

## JAPN2507

3 Credits

### Japanese Politics

This course addresses sociopolitical and economic similarities and differences between Japan and the West.

## JAPN3015

3 Credits

### Japanese Culture Through Film

Study of the culture of Japan through selected films. It highlights pivotal moments in Japanese history captured in Japanese movies. (Equivalent to CINE3015 Japanese Culture Through Film.)

# Literature

## Department of Literature, Language, Writing and Philosophy

## LITS2001

3 Credits

### The European Tradition I

Reading and analysis of representative world literary texts; emphasis on narrative and dramatic texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

## LITS2002

3 Credits

### World Literature II: 13th–18th Centuries

Reading and analysis of representative world literary texts; emphasis on dramatic, narrative and poetic texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

## LITS2003

3 Credits

### Survey III: Approaches to World Literature

Reading and analysis of representative world literary texts; emphasis on dramatic, narrative, po-

etic and visual texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

## LITS2004

3 Credits

### Introduction to Literary Criticism

Introduction to the major schools of literary and cultural criticism developed in the last half century: new criticism, psychoanalysis, feminism, Marxism, semiotics, cultural studies, post-colonialism and environmentalism; emphasis on the ways in which class, racial, gender, sexual, national or religious identities define interpretive frameworks; analysis of texts drawn from literature and popular culture that illustrate aspects of the theories. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS2005

3 Credits

### The European Tradition II

The course surveys European literature from the 17th through the 20th centuries, highlighting major authors, texts and literary movements in their historical, cultural and literary contexts. Readings include selections from poetry, drama, essays and fiction.

## LITS2007

3 Credits

### Short Story and Film

This course explores how works of short fiction have been adapted to the big screen; focus on genre, style, plot, symbolism, character and theme; examines the accommodations, alterations, additions and deletions that are undertaken when a short story is made into a film; why and how these stories are effectively transformed into movies, considering differences in plot, the genesis of the screenplay and the finished film product.

## LITS2008

3 Credits

### Literary Perspectives on Global Cultures

Sample literature from a variety of cultures from around the globe, seeking to understand the values, representations of individual experience, relationships to society at large and spiritual truths embodied. Considers how social, economic and political realities find expression in works of the creative imagination and how aesthetic choices are products of cultural identity and social environment. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS2009

3 Credits

### The Bible and Its Influence

The course examines the Old and New Testaments both as literary texts and as a source for later literary inspiration. Texts studied may include both the Bible itself and later poetry, plays



or narrative fiction based upon it, including such works as Milton's *Paradise Lost*, Bunyan's *Pilgrim's Progress*, Archibald MacLeish's *J.B.*, Joseph Heller's *God Knows* and Ngũgĩ wa Thiong'o's *Matigari*.

**LITS2011****3 Credits****American Literature I**

Survey of significant works and authors in American literature through the end of the 19th century. Authors include Melville, Hawthorne, Poe, Dickinson, Jacobs, Twain, Chopin.

**LITS2505****3 Credits****Topics in Latino Literature**

Major issues in Latino culture and identity in the United States; theoretical readings provide the foundations for close reading of Latino writings; special emphasis on issues of ethnicity, class and race, as represented in selected works of literature.

**LITS3000****3 Credits****Literary Tour of England**

Students read several British novels, short stories, novellas and poems in order to see how the literal map of southern literary England gets constructed and traversed. There is a study-abroad component. Students will write short papers and a longer one.

**LITS3012****3 Credits****American Literature II**

Survey of significant authors in American literature from the 20th century to the new millennium. Authors from Faulkner, Hemingway and O'Neill to Tennessee Williams and Toni Morrison. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry

**LITS3013****3 Credits****African-American Literature**

The course will examine the literary, cultural and social significance of both black characters and black writers and why Afro-centric literature continues to remain on the outside of mainstream literature consumption. Close attention will be paid to specific eras of writing each semester, such as slave literature, Reconstructionist literature, the Harlem Renaissance and the Black Arts Movement. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3014****3 Credits****American Dreams, American Tragedies**

This course uses literature to address the question of how Americans have seen themselves

and been seen by others over the course of several centuries, focusing around versions of the promise of America initially defined by Crèvecoeur and Tocqueville. The class considers how American ideals of equality, opportunity and individual destiny have evolved, been challenged and redefined as expressed in the nation's art and writing, especially literature. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3015****3 Credits****American Writers in Italy**

The course looks at writers who spent time in Italy and at what they wrote while they were there. The course includes texts (full or excerpts) by Hawthorne, Twain, Wharton, James, Hemingway, Dos Passos, Pound and Tennessee Williams. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3020****3 Credits****18th-century British Literature**

Representative British verse, drama and prose from the late 17th century to the early 19th century. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3021****3 Credits****Victorian Age**

Representative British poetry and prose from 1832 to the early 20th century, consideration of the emergence of popular genres and interaction between popular and literary styles. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3050****3 Credits****Classical Tradition**

Study of major ancient Greek and Roman literary, philosophical and historical works and authors from Homer to Ovid; emphasis on the development of literary styles and forms, cultural continuities and comparative analysis. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3051****3 Credits****Medieval Literature**

A survey of the major works of European literature from 500–1400 C.E., with emphasis on genre and themes in relation to historical and social forces that shaped these works; comparative study of non-European texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3052****3 Credits****Renaissance World**

Representative European verse, drama and prose of the 15th through 17th centuries; emphasis on the development of various genres and literary forms in relation to historical and social forces that shaped these works; comparative study of non-European texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3053****3 Credits****18th- and 19th-century European Fiction**

Study of leading writers of European fiction from 1700–1900; emphasis on emergence of the novel, novella and short story as genres; development of national literary traditions. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3054****3 Credits****Romanticism**

Representative poetry and prose from 1789–1832 in England and Europe; attention to the interaction between social movements and literary styles and other artistic forms such as art and music. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3055****3 Credits****The Italian-American Experience**

This course examines key moments in the history of Italian immigration, settlement and integration in North America from the end of the 19th century to today, through literature and film.

**LITS3056****3 Credits****Italy: Land of Migrations**

In the last two centuries, Italy has been the source of a large migration outward and, in recent years, the destination for a large migration inward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. (Equivalent to CINE3056/ITAL3056 Italy: Land of Migrations.)

**LITS3061****3 Credits****Contemporary World Literature**

Study of international literature at the end of the 20th century and the beginning of the 21st century with emphasis on comparative analysis, common themes and styles and social and cultural texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

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## LITS3064

1 Credit

### **Vietnam in Film and Literature**

A one-credit course about the representation of the Vietnam War in film and literature. The course will meet for six two-and-a-half-hour blocks.

## LITS3070

3 Credits

### **Voices of Contemporary India**

Reading and analysis of Indian writers in English or indigenous languages (in translation) from the post-independence period to the present; emphasis on the social and cultural developments in the post-colonial period and the emergence of Indian literature as a major influence in world literature. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3071

3 Credits

### **Contemporary African Literature and Culture**

A survey of drama, poetry, fiction and nonfiction from the African continent, in English and English translation, with emphasis on post-colonial period, the African aesthetic, African liberation movements and African religious and cultural values. Texts studied may include works by writers such as Mariama Bâ, Wole Soyinka, Naguib Mahfouz and J.M. Coetzee. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3072

3 Credits

### **Latin-American Women Writers**

Selected readings in translation of significant authors of Latin-American literature.

## LITS3073

3 Credits

### **Irish Literature**

This course surveys some 1,500 years of Irish literature in the Irish language (read in translation) as well as Irish literature in English. Students will have the option of learning some modern Irish. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3081

3 Credits

### **Hispanic Traditions**

Study of selected major Hispanic writers in translation from Cervantes to the present. Majors in Spanish read in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3082

3 Credits

### **Francophone World**

Study in translation of selected writers from around the French-speaking world in Africa, the

West Indies, Canada, the Pacific Islands and Southeast Asia. Majors in French read in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3101

3 Credits

### **Greek and Roman Drama**

Analysis of ancient drama emphasizing its origins and development and its literary, artistic, historical, psychological and sociological value and significance, as well as its continued influence on modern and contemporary drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3102

3 Credits

### **Studies in Drama**

Analysis of significant plays, focusing on particular themes, playwrights, historical periods or forms of drama. Topics change with each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3103

3 Credits

### **Modern Drama: 1880-1930**

The course focuses on the innovative theater of Ibsen, Strindberg and Chekhov at the turn of the 20th century. Other playwrights (such as Pirandello and Brecht) may be considered as well. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3104

3 Credits

### **Contemporary American Drama**

Reading and analysis of selected American plays and playwrights from the 1940s to the present. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3105

3 Credits

### **Contemporary European Drama**

Study of major European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent. (Equivalent to THEA3105 Contemporary European Drama.)

## LITS3106

3 Credits

### **Contemporary World Drama**

Study of major non-European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social

issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3107

3 Credits

### **Hispanic Drama**

Study and analysis of major works of Spanish theater from the Renaissance to the present. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3111

3 Credits

### **Studies in Poetry**

Reading and analysis of poetry focusing on specific themes, authors, historical periods or poetic forms. Topics change each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3112

3 Credits

### **20th-century Poetry**

Reading and analysis of representative poets and poetry; emphasis on the emergence and influence of modernist poetry. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3113

3 Credits

### **Women Poets and Poetic Tradition**

Survey of poetry by and about women from ancient Greek poet Sappho through the 21st century. Writers to include Sappho, Wroth, Robinson, Hemans, L.E.L., Barrett Browning, Rossetti, Dickinson, Plath, Brooks, Rich and Lorde, among others. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

## LITS3121

3 Credits

### **Studies in the Novel**

Reading and analysis of novels and other prose fiction focusing on specific themes, authors, historical periods or forms of fiction. Topics change each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3122

3 Credits

### **20th-century Novel**

Study of representative novelists and novels from the early 20th century to post-World War II; emphasis on the emergence and influence of modernist fiction. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3123

3 Credits

### **Contemporary Fiction**

Study of developments in the forms and themes of fiction since the 1960s. Prerequisite:

ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3125****3 Credits****International Short Story**

In this genre course focusing on short stories, students will derive an understanding of the short story form from the 19th century through the present day in global perspective. Emphasis on form, craft, narrative and national traditions (both in English and in translation). Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3130****3 Credits****Comedy, Satire and Parody**

This course focuses on sentimental comedy, satire, farce and parody in a variety of genres, from a global perspective, both in English and English translation. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3151****3 Credits****Detective Fiction**

Analysis of the way writers have shaped the genre with attention to literary strategies and structure and social-cultural contexts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3152****3 Credits****Science Fiction**

A study of the historical, thematic and theoretical development of the genre from the late 19th century to the present; analysis of the way writers have shaped the genre with attention to literary strategies and structure and social-cultural contexts. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3153****3 Credits****Comic Books and Graphic Novels**

Examination of the literary, cultural and social significance of the graphic novel, its initial rise and its rising popularity as a literary medium; emphasis on the origins of the genre and its relationship to comic-book writing; exploration of comparative relationships between the graphic novel and other popular genres such as science fiction, the detective novel, historical fiction and fantasy literature. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3154****3 Credits****Women's Autobiography**

This course examines autobiographical writing by women, particularly autobiographies, memoirs and diaries, and the way autobiographical writing may be shaped by gender. It will pay

attention to relationships between public and private writing, fiction and nonfiction and the relationship of the writer to her audience. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3155****3 Credits****The Gothic in Fiction and Film**

Examination of the rise and development of the Gothic as a genre and its role in the history of literature, addressing such questions as why the Gothic has been such an enduring art form from its mid-18th century beginnings through Joyce Carol Oates and Stephen King; why it translates particularly well to the medium of film. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3156****3 Credits****The Novel in Letters**

Examination of novels in letter form from the 1700s to the present from Europe, America and other countries; analysis of why the letter form has continuing appeal even in today's culture of email. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3161****3 Credits****Modern Literature**

In the early 20th century, poet Ezra Pound had this advice for artists: "Make it new." In this course, students will explore how modernist writers attempted to reinvent literature. They will look at formal innovations (fragmented or nonlinear narrative, unusual approaches to point of view, language that questions its own meaning and other techniques). As the class reads poetry, fiction and nonfiction from the modernist period, it will also explore 20th-century historical forces (war, urbanization, the changing roles of women and others), which influenced both the form and content of modern literature. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

**LITS3201****3 Credits****British Writers**

Reading and analysis of selected major authors assessing their aesthetic achievements and their cultural influence. Topics change with each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3202****3 Credits****American Writers: Race in Black and White**

This course focuses on representations of race by American writers from the mid-19th century to the present, with some reference to depictions of race from other media as well. Featured authors may include Harriet Beecher Stowe,

Mark Twain, Richard Wright, Randall Kennedy, William Faulkner, August Wilson and Chimamanda Ngozi Adichie. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3211****3 Credits****Dante**

Reading and analysis in translation of Dante's major works, including *A New Life* and *The Divine Comedy*; consideration of Dante's place in Italian and European literatures and his continued influence. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3212****3 Credits****Chaucer**

Study of medieval England's leading poet, emphasizing *The Canterbury Tales*; attention paid to Chaucer's language, life and times, his relationship to his contemporaries and his role as innovator in English poetry. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3213****3 Credits****Shakespeare I**

A survey of Shakespeare's major poems, comedies, histories and tragedies; attention paid to Shakespeare's language, life and times and his role as innovator in English drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3214****3 Credits****Shakespeare II**

Consideration of selected major poems, comedies, histories and tragedies, focusing on specific themes or approaches. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3215****3 Credits****Cervantes**

Reading in translation and analysis of Cervantes' major works, focusing on *Don Quixote*; attention paid to Cervantes' life and times, his relationship to predecessors and contemporaries and his role as innovator in Spanish literature and world fiction. Spanish majors read texts in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3221****3 Credits****Medieval and Renaissance Women Writers**

A survey of writing by women from the 11th–17th centuries in Europe and the Americas;

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consideration of the notion of a female voice; cross-dressing, public speaking and other social transgressions; gender and genre; the impact of changing historical conditions on women's artistic production. Reading in the original language encouraged. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3250

3 Credits

### Jane Austen: Fiction and Film

Study of Austen's six novels published during and after her lifetime and exploration of their context in 18th-century literature, the Regency Era in Britain and the Romantic movements in Europe will lead to understanding her continued appeal in print and in film. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3300

3 Credits

### Romance Languages

Origins and development of the Romance languages from Latin; introduction to basic principles of language structure; consideration of similarities and differences among various Romance languages. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3301

3 Credits

### The English Language

An introduction to the systematic study of the structure and grammar of English in light of contemporary linguistic theory; survey of the historical development of English with emphasis on etymology; consideration of language in its social context; language acquisition; and recent linguistic controversies (e.g., bilingualism, non-standard dialects, gender differences). Recommended for prospective teachers. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3302

3 Credits

### Myth and Sacred Texts

Consideration of the role of myth and sacred texts as the underpinnings of literature; comparative study of myths and sacred texts from different cultures, Western and non-Western; analysis of theories of myth. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## LITS3303

3 Credits

### World Folk Literature

Study of fairy tales, märchen, wonder tales and legends from diverse cultures; examination of universal patterns in folk narrative; differences in oral vs. written storytelling; roles of the storyteller; function of folk tales in children's psychological development; modern critical evaluation

of folk literature; influence of folk literature in contemporary culture. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3311

3 Credits

### Children's Literature

Survey of mid- to late-20th-century children's literature to examine how this literature reflects theories and notions of childhood as well as changes within society; texts include picture and chapter books, novels, graphic novels, film adaptations and criticism. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent, junior or senior standing.

## LITS3312

3 Credits

### Young Adult Literature

Survey of selected literature of the mid- to late-20th century that examines the transition to adulthood, sexuality, conflict between youth and parents, fantasy, responsibility and authority. Texts include commonly taught high school texts, coming-of-age novels, graphic novels, film adaptations and criticism; discussion of censorship and what is appropriate for young adults to read. Prerequisites: ENGW1002 Composition II: Research and Argument or equivalent, junior or senior standing.

## LITS3313

3 Credits

### Nobel Literature

Focus on Nobel Prize winners in literature, exploring cultural, aesthetic and political dimensions in their works; investigation of the Nobel award process. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3321

3 Credits

### Post-modern Literature

Defining post-modern literature through consideration of a range of genres (fiction, film, drama, poetry and essay) from around the world; analysis of key stylistic elements (multiple voices, deeply ironic sense of humor, self-conscious storytelling and a richly allusive range of references to past literature and culture); examination of the changing relationship of popular culture to high culture. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3322

3 Credits

### Post-colonial Studies

Exploration of writing by former colonial subjects (e.g., in Asia, Africa, South America); consideration of issues of colonial and post-colonial identity; the dynamics of power relationships between dominant and subaltern cultures (including racial and gender perspectives); role of mainstream literature in constructing colonial

identities; analysis of key theories and theorists. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3331

3 Credits

### The Age of Discovery in World Perspective

This course looks at the era of European expansion from the mid-16th century through the 18th century from a multicultural perspective, considering cultural differences and cultural intrusion as reflected in literary expression. Writers studied may include: Olaudah Equiano, Mary Prince, Cao Xueqin, Molière, Aphra Behn, Matsuo Basho, Lady Mary Wortley Montagu, Mary Kingsley, Elizabeth Melville, Mary Rowlandson, Immanuel Kant, Jonathan Swift, Alexander Pope, Voltaire, Mary Wollstonecraft, Jean Jacques Rousseau or Friedrich Nietzsche. Oral literature may include the *Epic of Sundiata*. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3331

3 Credits

### Ethnic American Literature

Consideration of poetry, fiction and other writing by members of various ethnic groups in the United States; assessment of contribution of ethnic experience to American cultural diversity. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3341

3 Credits

### Queer Literature

This course examines the emergence of gay and/or lesbian literature as a group of text and a field of critical study. Readings may include Sappho and Plato, Michelangelo and Katherine Philips, Forster and Woolf as well as other 19th- and 20th-century writers and contemporary secondary material from gender studies and queer theory. Prerequisite: ENGW1002 Composition II: Research and Argument.

## LITS3350

3 Credits

### Monsters and Bad States

An exploration of political and social nightmares and dreamscapes, drawing on literature, political theory and contemporary policy and public affairs. (Equivalent to GOVT3851 Monsters and Bad States.)

## LITS3351

3 Credits

### Literary Perspectives on the Environment

Examination of narratives of the environment; consideration of the impact of human activity on the environment as reflected in and represented by the stories created; comparative and intertextual readings of literary texts, United Nations

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policy papers, news reports, documentaries, photographs and artwork; analysis of how texts construct people's relations to the environment but also enable them to conceive of future alternatives. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3352****3 Credits****Music and Poetry**

This course examines the relationship between poetry (or lyrics) and music throughout history. The class will study the oral tradition, devotional songs in various traditions, ballads and contemporary songwriters such as Bob Dylan, Bruce Springsteen and Joni Mitchell. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3390****3 Credits****Italian Mafia in Literature and Film**

The course examines the evolution of organized crime in Italy (termed Mafia, Cosa Nostra, Camorra, 'Ndrangheta, etc.) from its beginnings in the second half of the 19th century to the 21st century through the analysis of novels, films, newspaper articles and documentaries. (Equivalent to ITAL3390 Italian Mafia in Literature and Film.)

**LITS3441****3 Credits****Latin-American Theater**

This course will survey important currents in the development of Latin-American theater. Dramatic texts will be studied to understand how they reflect on social and political issues. Moreover, how Latin-American dramatic discourse emerges within the context of colonialism, in response to other theatrical traditions and in its search for its own identity, will be key concepts explored in this course. Key moments from the early colonial period to the 20th century will form the class discussion.

**LITS3462****3 Credits****Topics in Hispanic Poetry**

This course surveys the development of poetry in Spain or Latin America. It examines major movements in the Hispanic lyric. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3551****3 Credits****Sex and Politics in French Literature**

This course focuses on manners at court and beyond — from the 17th century to the end of the 19th century. Among the authors considered: Molière, Laclos, Marivaux, Dumas, Stendhal, Balzac, Baudelaire and Zola. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3552****3 Credits****Topics in Spanish Literature II**

This course focuses on Romanticism, Realism, Modernism or other contemporary themes in Spanish literature. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3553****3 Credits****Shakespeare and Film**

While Shakespeare's plays have been put on film since the invention of movies, recent years have witnessed a great increase in the production of Shakespeare movies as demonstrated by popular mainstream productions of "Othello," "Hamlet," "A Midsummer Night's Dream," "Twelfth Night" and "Romeo and Juliet." Made in a variety of production styles, these films have attracted a good deal of academic attention through college courses, articles, books and entire journals devoted to the subject. This course will cover a number of plays from text to realization on film and ask students to consider issues of cinematic and literary style.

**LITS3561****3 Credits****Topics in Latin-American Literature I**

This course focuses on the literature of Latin America from pre-Hispanic texts through the Enlightenment. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3562****3 Credits****Topics in Latin-American Literature II**

This course focuses on the literature of Latin America from Romanticism to the present. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3666****3 Credits****Witches and Warlocks in the West**

This course focuses on the definition of who and what is a witch, both in Europe and North America, from the Middle Ages to the 20th century. (Equivalent to ITAL3666 Witches and Warlocks in the West.)

**LITS4001****3 Credits****Senior Seminar: English and World Literatures**

Advanced study and research on topics in literature and criticism; capstone course required of all seniors majoring in literature. Prerequisite: 12 credits in other literature (LITS) courses.

**LITS4498****3 Credits****Internship**

Practical experience working in a business, government or nonprofit setting or in the publications field, applying academic knowledge; academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

**LITS4800****1–6 Credits****Independent Study**

Independent study under the direction of a specific faculty member after consultation with the department chairperson. Prerequisites: permission of instructor and approval of department chair.

**LITS4900****3–12 Credits****Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: permission of instructor and approval of department chair.

**Writing and Creative Writing**

See pages 367–369 for course descriptions.

# Mathematics

**Department of Mathematics,  
Computer Science and Physics****MATH0100****0 Credits****Intermediate Algebra Lab**

Laboratory in coordination with MATH1100 Intermediate Algebra.

**MATH0128****0 Credits****Mathematical Methods Lab**

Laboratory for MATH1128 Mathematical Methods students to practice problem-solving skills. Corequisite: MATH1100 Intermediate Algebra.

**MATH0198****4 Credits\*****Computation Algebra Skills**

Precollege mathematics: basic numerical concepts, fractions, operations with signed numbers, introductory algebra, graphs, operations of polynomials, simple and simultaneous linear equations. MATH0198 is designed for students with deficiencies in both computational mathematics and elementary algebra. Placement in MATH0198 is made by the Academic Support Center and based on performance on a placement test. Prerequisite credit only.\*

*Fall*

\*Prerequisite credits are credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).

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## MATH0298

3 Credits\*

### Algebra Skills

Precollege mathematics: basic arithmetical concepts, graphs and charts, introductory algebra. No credit toward graduation requirements.

Prerequisite credit only.\*

Fall, Spring

## MATH1100

4 Credits

### Intermediate Algebra

A course for students who have passed or tested out of MATH0298 Algebra Skills, but need additional preparation for MATH1107 Precalculus or MATH1128 Mathematical Methods.

Topics will range from linear and quadratic equations to exponential and logarithmic functions. Prerequisite: MATH0298 Algebra Skills or placement.

Fall, Spring

## MATH1107

4 Credits

### Precalculus

Algebraic operations, factoring, exponents, radicals; quadratic and higher degree equations; systems of linear equations; functions and their graphs; exponential, logarithmic and trigonometric functions and their graphs; trigonometric identities; triangle trigonometry. Prerequisite: placement or MATH0298 Algebra Skills with a grade of B+ or MATH1100 Intermediate Algebra.

Fall, Spring

## MATH1126

3 Credits

### Contemporary Mathematics

An introduction to mathematical concepts relevant to the modern world. Topics include graph theory, planning and scheduling, linear programming, analysis of data, probability, social choice, weighted voting systems, game theory, growth and form, the size of populations, measurement and patterns. Meets mathematics core requirement (in place of MATH1128 Mathematical Methods) for Becton College students majoring in humanities or social or behavioral science disciplines. Prerequisite: placement or MATH0298 Algebra Skills with a minimum grade of B or MATH1100 Intermediate Algebra.

Fall, Spring

## MATH1128

3 Credits

### Mathematical Methods

Linear and nonlinear equations and functions, exponential and logarithmic functions, simple and compound interest, annuities, matrices and simultaneous equations, sets, introduction to calculus. Prerequisite: placement or MATH0298 Algebra Skills with a minimum grade of B or MATH1100 Intermediate Algebra.

Fall, Spring

\*Prerequisite credits are credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).

## MATH1129

3 Credits

### Introduction to Statistics

Elementary probability and statistics, descriptive and visual statistics, elements of probability, sampling distribution, estimation theory, test of hypothesis and other aspects of statistical inference.

Fall, Spring

## MATH1130

3 Credits

### Invitation to Mathematics

The course looks at mathematics in a visual and intuitive manner and develops mathematics as a means of effective reasoning to discover patterns and solve problems. Intended for students with majors outside mathematics and science, the course requires only high school algebra.

The class will study several types of mathematical structures such as prime numbers, covering the plane with tiles and statistical patterns in data, and find ways to ask and answer questions about these structures. Prerequisites: ENGW1002 Composition II: Research and Argument and MATH1100 Intermediate Algebra.

## MATH1133

3 Credits

### Applied Statistics

An introduction to statistics with applications to the social, behavioral and natural sciences. Introduction to computational statistics using a major statistical computer package. Prerequisite: placement or MATH0298 Algebra Skills with a minimum grade of B or MATH1100 Intermediate Algebra, MATH1107 Precalculus or MATH1203 Calculus I.

Fall, Spring

## MATH1155

3 Credits

### Mathematical Ideas

Survey of traditional and contemporary mathematics and applications to the real world. The topics are developed within a historical framework and designed to develop an appreciation of the role and universality of mathematics in the global marketplace. Topics include concepts and applications of set theory, symbolic logic, elementary number theory and mathematical reasoning. Offered as a mathematics elective (not for mathematics or computer science majors). Prerequisite: MATH1100 Intermediate Algebra or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

## MATH1203

4 Credits

### Calculus I

Slope of a straight line, equations of lines, slope of curve, rate of change of function, derivatives of algebraic functions, maxima and minima, Mean Value Theorem, indefinite and definite in-

tegrals and their applications. Prerequisite: MATH1107 Precalculus with a grade of C- or better or by placement.

Fall, Spring

## MATH1239

3 Credits

### Calculus with Business Applications

Slopes and linear functions, other functions and models, limits and continuity, average rates of change, instantaneous rates of change in business and economics, differentiation techniques, maxima and minima values used in graphing and their application to business and economics, inventory cost and marginal analysis and introduction to integration. Prerequisite: MATH1100 Intermediate Algebra. For Silberman College of Business students only. Permission of instructor required.

Fall

## MATH2133

3 Credits

### Forensic Mathematics and Statistics

This is a one-semester mathematics course designed for criminology majors. A wide range of mathematics techniques with emphasis on forensic applications would be included. Covered topics would be selected from the following: functions, equations, algebraic manipulations, applications of exponential and logarithmic functions, trigonometric methods, graphs, linear regression, probability and comparative statistics. A large number of examples will be selected from the following applications: ballistic calculations, ricochet analysis, trajectory of a falling body, quantification of drugs and their metabolites, elimination of alcohol from the body, bloodstain shape and formation, bloodstain impact angle, blood phenotype distribution, the matching of hair evidence, genotype frequencies and DNA evidence, probability and uniqueness of fingerprints and human teeth marks. Several group projects on solving cases will be used. Excel will be used in data-analysis projects. Prerequisite: MATH1126 Contemporary Mathematics.

## MATH2202

4 Credits

### Calculus II

Differentiation and integration of transcendental functions, log functions, methods of integration, indeterminate forms, infinite series, Taylor series, Conic sections. Prerequisite: MATH1203 Calculus I.

Fall, Spring

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**MATH2203****4 Credits****Calculus III**

Lines and planes in 3-space. Vectors, functions of several variables, partial derivatives, multiple integrals, line integrals, vector analysis. Prerequisite: MATH2202 Calculus II.

*Fall, Spring***MATH2255****3 Credits****Discrete Structures**

Set theory, algebraic structures, Boolean algebra and propositional logic, graph theory and other aspects of combinatorial mathematics. Prerequisite: MATH1203 Calculus I.

*Fall***MATH3210****3 Credits****Number Theory**

A study of the integers: prime numbers, unique factorization, congruence, theorems of Fermat and Euler, quadratic reciprocity, Diophantine equations and applications to cryptography and coding. Prerequisite: CSCI2255 Discrete Structures or MATH2255 Discrete Structures.

**MATH3220****3 Credits****Linear Algebra**

Vector spaces, linear independence, bases, linear transformation, matrix algebra, inner product, spaces, linear equations, special topics. Prerequisite: MATH2202 Calculus II.

*Spring***MATH3225****3 Credits****Abstract Algebra**

Elements of the theories of groups, rings, integral domains and fields, polynomial rings, factorization theory and field extensions. Prerequisites: MATH2202 Calculus II and MATH3220 Linear Algebra.

**MATH3252****3 Credits****Multivariable Advanced Calculus**

A survey of functions of several variables, multiple integrals, vector calculus, line integral, surface integral and Green's and Stokes theorem. Prerequisites: MATH1203 Calculus I, MATH2202 Calculus II, MATH2203 Calculus III and MATH3220 Linear Algebra.

**MATH3250****3 Credits****Numerical Analysis**

Introduction to numerical approximations suitable for computer use. Roots of polynomials, numerical integration, numerical solutions of differential equations, error estimation. Prerequisite: MATH2202 Calculus II.

**MATH3251****3 Credits****Introductory Analysis**

The real number system, sequences and series, functions and continuity, differentiability, the Riemann integral, sequences and series of functions. Prerequisites: MATH2203 Calculus III and MATH2255 Discrete Structures.

**MATH3269****3 Credits****Introduction to Data Mining**

This course introduces the fundamental concepts of data mining. Students will gain an in-depth understanding of algorithms in the field, and will learn how to prepare data for learning and classification. Topics covered include data preprocessing, classification, cluster and outlier analysis and text mining. Students will work on projects applying the theory learned. Prerequisite: CSCI2235 Data Structures and Algorithms or CSCI3535 Computer Algorithms or MATH3300 Statistics I or permission of department chair.

**MATH3300****3 Credits****Statistics I**

A calculus-based introduction to statistics covering a range of topics from descriptive statistics, discrete and continuous probability distributions, sampling distributions, interval estimation, test of hypothesis, linear regression and ANOVA. Prerequisite: MATH1203 Calculus I.

**MATH3303****3 Credits****Probability**

This course introduces students to the basic theory of probability. Both discrete and continuous probabilistic models are used to solve problems. Concepts and techniques from discrete math such as Boolean algebra are used in discrete cases. Differentiation and integration techniques are used in continuous cases. Students get familiar with common discrete distributions: binomial, geometric and Poisson. Continuous distributions covered include: normal, gamma and chi-squared. Students also learn how to calculate means, variances and moment-generating functions. Prerequisite: MATH2202 Calculus II. Corequisite: MATH3313 Probability Practicum.

**MATH3304****3 Credits****Combinatorics**

Arrangements, selections and distributions. Generating functions, partitions and recurrence relations. Inclusion-exclusion principle. Graph models and isomorphisms. Planarity. Euler and Hamilton circuits. Graph coloring. Trees and graph algorithms. Application particularly to computer science. Prerequisite: CSCI2255/ MATH2255 Discrete Structures.

**MATH3305****3 Credits****Advanced Probability and Statistics**

This course exposes students familiar with the basic theory of probability to a few more advanced areas of probability and one special area of statistical analysis. The probabilistic areas include multivariate probability distributions and functions of random variables. The statistical component covers linear models, including both simple and multiple linear-regression analysis. Prerequisites: MATH1203 Calculus I and MATH3303 Probability.

**MATH3307****3 Credits****Mathematics of Finance**

Students will develop an understanding of the fundamental concepts of financial mathematics with emphasis on applications in calculating present and accumulated values for various streams of cash flows. Topics include valuation of annuities, loan amortizations, bond valuation, the rate of return on investment, asset-liability matching and immunization. Prerequisite: MATH1203 Calculus I.

**MATH3308****3 Credits****Statistical Methods**

This course provides an in-depth coverage of the techniques of estimation, hypothesis testing, linear models: simple and multiple linear regression and the analysis of variance and categorical data. Prerequisite: MATH3303 Probability.

**MATH3309****3 Credits****Numerical Analysis**

Numerical solution of problems in analysis using the computer interpolation approximation, numerical integration and differentiation, solution of nonlinear equations and differential equations. Prerequisites: CSCI1205 Introduction to Computer Programming and MATH3318 Differential Equations.

**MATH3312****3 Credits****Theory of Computing**

Finite state deterministic and nondeterministic automata, pushdown, linear bounded and infinite automata, formal languages and computability. Prerequisite: MATH2255 Discrete Structures.

**MATH3313****0 Credits****Probability Practicum**

This is a problem-solving workshop accompanying MATH3303 Probability. Students practice calculating probabilities of events, conditional probabilities, means, variances and moments of random variables. The concepts of independent events and mutually exclusive events are ex-

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plored. Bayes' rule, three diagrams, moment-generating functions and other probabilistic tools are used in solving problems in both discrete and continuous cases. Corequisite: MATH3303 Probability.

## MATH3316

3 Credits

### Partial Differential Equations

Derivation of partial differential equations, boundary conditions, method of separation of variables. Fourier series, curvilinear coordinates, orthogonal functions, generating functions and classification of equations. Prerequisites: MATH2203 Calculus III and MATH2255 Discrete Structures.

## MATH3317

3 Credits

### Real Variables

Real number system. Introduction to measure theory and Lebesgue integration. Convergence theorems and special topics. Prerequisites: MATH3232 Multivariable Advanced Calculus and MATH3251 Introductory Analysis.

## MATH3318

3 Credits

### Differential Equations

First-order differential equations and applications, linear differential equations and applications, Laplace transforms, systems of equations, solutions in terms of power series, partial differential equations. Prerequisite or corequisite: MATH2203 Calculus III.

## MATH3331

3 Credits

### Higher Geometry

The axiomatic approach to Euclidean and non-Euclidean geometry. Affine, projective, inverse, hyperbolic and spherical geometries according to Felix Klein's Erlangen program. Prerequisite: MATH3220 Linear Algebra.

## MATH3335

3 Credits

### Complex Variables

Analytic functions, Cauchy's integral and theorem and consequences, calculus of residues, entire and meromorphic functions, conformal mapping. Prerequisite: MATH2203 Calculus III.

## MATH3355

3 Credits

### Introduction to Cryptography

Cryptography is the branch of mathematics that studies the design of systems for communication over non-secure channels. It uses ideas from number theory and abstract algebra to cover topics from classical cryptosystems (ciphers) to 1970s breakthroughs such as Diffie-Hellman's key exchange and RSA cryptography (public key) to the more recent methods of ElGamal and elliptic curves. Prerequisite: MATH2255 Discrete Structures.

## MATH3360

3 Credits

### Topology

Metric and topological spaces, continuity, compactness, connectedness, homotopy, homology and special topics. Prerequisites: MATH3225 Abstract Algebra and MATH3251 Introductory Analysis.

## MATH3365

3 Credits

### Mathematics of Operations Research

A study of the principal mathematical techniques used in operations research, including model formulation, optimization, linear and nonlinear programming, game theory, queuing theory, statistics and applications.

## MATH3371

3 Credits

### Modeling and Simulation

Definition of systems. Input, output and state variables. Continuous and discrete dynamical systems. Differential equations and their use in modeling. The CSMP language and its use. Prerequisites: MATH2203 Calculus III and knowledge of a programming language.  
*Spring*

## MATH4001, MATH4002

1–3 Credits

### Mathematics Internship

Supervised practical experience in the field of mathematics in a professional setting. Permission of the instructor and department chair required.

*Fall, Spring, Summer*

## MATH4007

3 Credits

### Financial Mathematics II

The course introduces students to mathematical models used in finance. Topics include arbitrage, the Black-Scholes option pricing model, utility functions, optimal portfolio selection, capital assets pricing model. Prerequisites: MATH3303 Probability and MATH3307 Mathematics of Finance.

## MATH4401

6 Credits (3 Credits Each Semester)

### Selected Topics in Mathematics

Advanced studies in special fields of mathematics.

## MATH4430

1–3 Credits Each Semester

### Selected Studies in Mathematics

Studies in an area of mathematics.

## MATH4477

1–3 Credits Each Semester

### Honors Research and Thesis

## MATH4498

1–3 Credits

### Co-op in Mathematics

Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, University course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

## MATH4800

1–3 Credits Each Semester

### Independent Study in Mathematics

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

## MATH4999

0 Credits

### Mathematics Assessment

This course is a level-assessment test for evaluating the breadth of knowledge in the major requirement and major elective courses. No class time is allocated for this course. The test is administered once every semester.

*Fall, Spring*

### Graduate Courses

Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the department chairperson.

Interested students should see the *Graduate Studies Bulletin* for list of courses and descriptions.

# Music

## School of the Arts

### Applied Music

## MUSIC1015

3 Credits

### Basic Vocal Technique

This course uses a workshop format to teach vocal anatomy, proper breathing, balanced tone as well as work on vocal registers and vocal health. Each student will be assigned pieces from musical theater and/or the classical repertoire. This course is targeted for freshman theater arts majors with a concentration in musical theater and/or other students wishing to improve their singing and gain confidence and skill set for solo singing. (Equivalent to THEA1015 Basic Vocal Technique.)

## MUSIC1020

1 Credit

### Chorus

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.



**MUSIC1022****1 Credit****Chorus II**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1023****1 Credit****Chorus III**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1024****1 Credit****Chorus IV**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1025****1 Credit****Chorus V**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1026****1 Credit****Chorus VI**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1027****1 Credit****Chorus VII**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1028****1 Credit****Chorus VIII**

A performance ensemble of mixed voices for the rehearsal and performance of choral music. A

wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

**MUSIC1050****1 Credit****Band**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1052****1 Credit****Band II**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1053****1 Credit****Band III**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1054****1 Credit****Band IV**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1055****1 Credit****Band V**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1056****1 Credit****Band VI**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1057****1 Credit****Band VII**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1058****1 Credit****Band VIII**

A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

**MUSIC1361****1 Credit****Private Instruction in Bass**

A one-semester course for private instruction in bass.

**MUSIC1362****1 Credit****Private Instruction in Bass II**

A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1362 Private Instruction in Bass.

**MUSIC1363****1 Credit****Private Instruction in Bass III**

A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1362 Private Instruction in Bass II.

**MUSIC1364****1 Credit****Private Instruction in Bass IV**

A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1363 Private Instruction in Bass III.

**MUSIC1365****1 Credit****Private Instruction in Bass V**

A one-semester course for those seeking proficiency in double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1364 Private Instruction in Bass IV.

*Fee***MUSIC1366****1 Credit****Private Instruction in Bass VI**

A one-semester course for those seeking proficiency in double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1365 Private Instruction in Bass V.

*Fee***MUSIC1367****1 Credit****Private Instruction in Bass VII**

A one-semester course for those seeking proficiency in double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1366 Private Instruction in Bass VI.

*Fee***MUSIC1368****1 Credit****Private Instruction in Bass VIII**

A one-semester course for those seeking proficiency in double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1367 Private Instruction in Bass VII.

*Fee**Fee*

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## MUSIC1375

1 Credit

### Private Instruction in Piano

A one-semester course for private instruction in piano.

*Fee*

## MUSIC1376

1 Credit

### Private Instruction in Voice

A one-semester course for private instruction in voice.

*Fee*

## MUSIC1377

1 Credit

### Private Instruction in Woodwinds I

A one-semester continued course in private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum.

*Fee*

## MUSIC1378

1 Credit

### Private Instruction in Woodwinds II

A one-semester continued course in private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1377 Private Instruction in Woodwinds I.

## MUSIC1379

1 Credit

### Private Instruction in Woodwinds III

A one-semester continued course in private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1378 Private Instruction in Woodwinds II.

## MUSIC1380

1 Credit

### Private Instruction in Voice II

A one-semester course for private instruction in voice. Prerequisite: MUSIC1376 Private Instruction in Voice.

*Fee*

## MUSIC1381

1 Credit

### Private Instruction in Woodwinds IV

A one-semester continued course in private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1379 Private Instruction in Woodwinds III.

## MUSIC1386

1 Credit

### Private Instruction in Piano II

Private applied lesson in piano. Prerequisite: MUSIC1375 Private Instruction in Piano.

*Fee*

## MUSIC1387

1 Credit

### Private Instruction in Piano III

A continuation of MUSIC1386 Private Instruction in Piano II where students are seeking a greater proficiency.

## MUSIC1388

1 Credit

### Private Instruction in Piano IV

A continuation of MUSIC1387 Private Instruction in Piano III where students are seeking a greater proficiency.

## MUSIC1391

1 Credit

### Private Instruction in Guitar

A one-semester course for private instruction in guitar.

*Fee*

## MUSIC1392

1 Credit

### Private Instruction in Guitar II

Private lesson applied in guitar. Continuation of MUSIC1391 Private Instruction in Guitar. Prerequisite: MUSIC1391 Private Instruction in Guitar.

*Fee*

## MUSIC1393

1 Credit

### Private Instruction in Guitar III

Private applied lesson in guitar. Continuation of MUSIC1391 Private Instruction in Guitar and MUSIC1392 Private Instruction in Guitar II. Prerequisite: MUSIC1392 Private Instruction in Guitar II.

*Fee*

## MUSIC1394

1 Credit

### Private Instruction in Guitar IV

A continuation of MUSIC1393 Private Instruction in Guitar III. Prerequisite: MUSIC1393 Private Instruction in Guitar III.

*Fee*

## MUSIC1396

1 Credit

### Private Instruction in Violin I

A one-semester course of private instruction in violin.

*Fee*

## MUSIC1397

1 Credit

### Private Instruction in Violin II

A one credit course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1396 Private Instruction in Violin I.

*Fee*

## MUSIC1398

1 Credit

### Private Instruction in Violin III

A one credit course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1397 Private Instruction in Violin II.

*Fee*

## MUSIC1399

1 Credit

### Private Instruction in Violin IV

A one credit course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1398 Private Instruction in Violin III.

*Fee*

## MUSIC1401

1 Credit

### Private Instruction in Voice III

A one-semester continued course in private voice. Prerequisite: MUSIC1380 Private Instruction in Voice II.

*Fee*

## MUSIC1402

1 Credit

### Private Instruction in Voice IV

A one-semester continued course in private voice. Prerequisite: MUSIC1401 Private Instruction in Voice III.

*Fee*

## MUSIC1405

1 Credit

### Private Instruction in Voice V

A one-semester course of private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1402 Private Instruction in Voice IV.

*Fee*

## MUSIC1406

1 Credit

### Private Instruction in Voice VI

A one-semester course of private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1405 Private Instruction in Voice V.

*Fee*

## MUSIC1407

1 Credit

### Private Instruction in Voice VII

A one-semester course of private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1406 Private Instruction in Voice VI.

*Fee*

## MUSIC1408

1 Credit

### Private Instruction in Voice VIII

A one-semester course of private instruction for the student seeking continued proficiency in

voice. Prerequisite: MUSIC1407 Private Instruction in Voice VII.

*Fee***MUSIC1411****1 Credit****Private Instruction in Violin V**

A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1399 Private Instruction in Violin IV.

*Fee***MUSIC1412****1 Credit****Private Instruction in Violin VI**

A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1411 Private Instruction in Violin V.

*Fee***MUSIC1413****1 Credit****Private Instruction in Violin VII**

A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1412 Private Instruction in Violin VI.

*Fee***MUSIC1414****1 Credit****Private Instruction in Violin VIII**

A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1413 Private Instruction in Violin VII.

*Fee***MUSIC1415****1 Credit****Private Instruction in Guitar V**

A continuation of MUSIC1394 Private Instruction in Guitar IV. Prerequisite: MUSIC1394 Private Instruction in Guitar IV.

*Fee***MUSIC1416****1 Credit****Private Instruction in Guitar VI**

A continuation of MUSIC1415 Private Instruction in Guitar V. Prerequisite: MUSIC1415 Private Instruction in Guitar V.

*Fee***MUSIC1417****1 Credit****Private Instruction in Guitar VII**

A continuation of MUSIC1416 Private Instruction in Guitar VI. Prerequisite: MUSIC1416 Private Instruction in Guitar VI.

*Fee***MUSIC1418****1 Credit****Private Instruction in Guitar VIII**

A continuation of MUSIC1417 Private Instruction in Guitar VII. Prerequisite: MUSIC1417 Private Instruction in Guitar VII.

*Fee***MUSIC1425****1 Credit****Private Instruction in Piano V**

A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1388 Private Instruction in Piano IV.

*Fee***MUSIC1426****1 Credit****Private Instruction in Piano VI**

A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1425 Private Instruction in Piano V.

*Fee***MUSIC1427****1 Credit****Private Instruction in Piano VII**

A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1426 Private Instruction in Piano VI.

*Fee***MUSIC1428****1 Credit****Private Instruction in Piano VIII**

A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1427 Private Instruction in Piano VII.

*Fee***MUSIC1435****1 Credit****Private Instruction in Woodwinds V**

A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1381 Private Instruction in Woodwinds IV.

*Fee***MUSIC1436****1 Credit****Private Instruction in Woodwinds VI**

A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1435 Private Instruction in Woodwinds V.

*Fee***MUSIC1437****1 Credit****Private Instruction in Woodwinds VII**

A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1436 Private Instruction in Woodwinds VI.

*Fee***MUSIC1438****1 Credit****Private Instruction in Woodwinds VIII**

A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1437 Private Instruction in Woodwinds VII.

*Fee***MUSIC2015****3 Credits****Vocal Technique II**

The course continues developing skills for proper and healthy singing. It will concentrate on the emergence of a personal, convincing and appropriate expressive style on the basis of free singing tone and well-supported vocal mechanism. Students will be assigned pieces from musical theater or the classical repertoire. Prerequisite: MUSIC1015 Basic Vocal Technique. (Equivalent to THEA2015 Vocal Technique II.)

**MUSIC2359****3 Credits****Musical Theater Workshop**

A course designed to offer instructional training in singing for the musical theater. Emphasis will be placed on vocal training, rhythm and presentation, and each student will be helped to choose material suitable for his or her vocal range. (Equivalent to THEA2359 Musical Theater Workshop.)

**MUSIC2340****3 Credits****Advanced Musical Theater Workshop**

A performance workshop for advanced theater majors and singers. It focuses on improving singing and acting skills in the performances of songs and audition techniques. Prerequisite: MUSIC2359 Musical Theater Workshop. (Equivalent to THEA2340 Advanced Musical Theater Workshop.)

**MUSIC4422****1-3 Credits****Internship in Music I**

Internship within music that integrates classroom learning with supervised employment in an area relevant to the student's educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

# Philosophy

Maxwell Becton College of Arts and Sciences  
Florham Campus

## MUSIC4423

1–3 Credits

### Internship in Music II

Continuing internship within music that integrates classroom learning with supervised employment in an area relevant to the student's educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

## Music History

## MUSIC2221

3 Credits

### Fundamentals of Music Theory

An introduction to music theory, including the development of basic skills in reading and notating music, ear-training, sight-singing and the study of rhythm, melody, scales, keys, intervals and triads.

## MUSIC2311

3 Credits

### Children's Musical Theater

This course is designed to bring theater to younger audiences (5th–8th graders) by writing, designing and acting in a production created by students and toured to two to three middle schools in the vicinity. The rehearsal process will occur during the final week of summer break and then tour during the early part of the following fall semester. Students will learn how to create a production from the initial script to final performance in all aspects. (Equivalent to THEA2311 Children's Theater.)

## MUSIC4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## MUSIC4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: MUSIC4900 Faculty/Student Research.

## MUSIH1021

3 Credits

### Popular Music and Jazz

A survey of American popular musical styles of the last hundred years. In addition to lectures and discussions, the course makes extensive use of audio and video materials. Note: Fulfills cultural requirement.

## MUSIH2205

3 Credits

### Music for the Movies

An examination of film from the musical perspective, covering the history of music in films from the silent era to the present; the aesthetics of film music and how music works with (or against) the other elements of a film; and some discussion on the techniques of film scoring.

## MUSIH2211

3 Credits

### Survey of Music: Ancient to 1800

A survey of art ("classical") music from the ancient Greek period to the age of Beethoven. The course traces the development of Medieval and Renaissance music, and emphasizes the Baroque and classical eras, particularly Bach, Handel, Haydn, Mozart and Beethoven. Beginning with an introduction to the basic materials of music, the course focuses on the history of art music, the major composers from the 12th through the 18th centuries, their important works, stylistic and formal traits and the cultural-historic setting in which their music was created.

## MUSIH2212

3 Credits

### Survey of Music: 1800 to Today

A survey of art ("classical") music from the age of Beethoven to the present day. This course traces the development of music of the Romantic and Modern eras. Beginning with an introduction to the basic materials of music, the course focuses on the history of art music, the major composers from Beethoven to the present, their important works, stylistic and formal traits and the cultural-historic settings in which their music was created.

## MUSIH3344

3 Credits

### History of the Musical

A survey of the history of contemporary musical theater from its origins in the 19th century through present day. In addition to lectures and discussions, the course makes extensive use of audio and video materials. (Equivalent to THEAH3344 History of the Musical.)

## Music Practicum

## MUSIC4402

1 Credit

### Performing Ensemble

Open to instrumentalists for the development of ensemble skills. Students will be grouped into appropriate ensembles to include chamber ensembles and/or the Fairleigh Dickinson University Pep Band. Weekly group coachings will culminate in at least one performance per semester.

## MUSIC4800

1–3 Credits Each Semester

### Independent Study in Music

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

# Philosophy

## Department of Literature, Language, Writing and Philosophy

## PHIL1101

3 Credits

### Introduction to Logic

Principles of correct reasoning for understanding, analyzing and criticizing a variety of deductive and inductive arguments. Contents include: informal fallacies, truth and validity, principles of deductive reasoning, natural deduction, truth tables and symbolizations.

Fall, Spring

## PHIL1102

3 Credits

### Introduction to Philosophy

Problems of metaphysics such as the nature of reality, the nature of self, relation of mind and body; and problems of epistemology such as the sources, nature and limits of knowledge, the relationship between knowledge and reality and the nature of truth. In addition, this course aims at enhancing reasoning and critical-thinking abilities as well as reading and writing skills.

Fall, Spring

## PHIL1103

3 Credits

### Ethics

Moral philosophy seeks to answer questions like the following: What is a moral duty? Why is it that human beings are capable of conceiving of moral duties and rights? Why do different cultures impose different moral obligations on their members? Does this mean that there are no universally valid moral codes? Are there any methods, rules or procedures that can help us figure out what our duties are in given situations? Are there any theories that can assist us with determining our moral obligations? Why is there more than one theory? — after all, it sounds plausible that there should be a "right" answer to questions concerning moral duties. What is it that makes a theory "good" — or "bad"?

## PHIL1106

3 Credits

### Ideas of Happiness

Clarification of personal values and decisions by looking at important ideas of happiness. Examination of Western concepts of happiness in an attempt to clarify implications of personal value commitments. Authors may include Aristotle, Marcus Aurelius, Nietzsche, Camus and Hesse.

# Philosophy

Maxwell Becton College of Arts and Sciences  
Florham Campus

## PHIL1107

3 Credits

### **Dreams and the Imagination**

Study of a number of theories about dreaming using Freud's dreams as specimens. Discussion of broader functions of the imagination, its role in human knowledge and in the formation of culture.

## PHIL1112

3 Credits

### **Critical Thinking for College and Life**

This course focuses on skills and methods for developing and evaluating arguments in writings and everyday life. It affords, in an introductory way, keys to analytical thinking.

## PHIL1114

3 Credits

### **Philosophy Through Movies**

This course draws philosophical issues and positions from a carefully chosen selection of films.

## PHIL1119

3 Credits

### **Legal Issues from a Philosophic Perspective**

This course examines philosophical issues underpinning current legal controversies. Understanding the philosophy behind the issues helps plan effective strategies in supporting a side of the issue. Of special interest for prelaw students and those interested in social policy. Questions addressed include the nature of the law, the relationship of law to moral standards, the importance of procedures and institutions for the administration of justice, the features of the American system of justice and the functions of punishment. Also examined are puzzles and dilemmas that confront the jurist, hidden factors that influence results and shape principles in the system of justice and certain issues of social justice.

## PHIL1120

3 Credits

### **Language and Communication**

The course examines some of the philosophical issues surrounding language with an eye to helping the student communicate more clearly and effectively.

## PHIL1436

3 Credits

### **Asian Philosophy**

Dominant philosophical beliefs in Hinduism, Buddhism, Confucianism and Taoism.

## PHIL1439

3 Credits

### **Nietzsche: Philosopher as Psychologist**

Friedrich Wilhelm Nietzsche undertook a monumental critique of civilization. The course plumbs the fascinating analysis of the human mind he offers.

## PHIL1440

3 Credits

### **Biomedical Ethics**

Examination of the moral and ethical questions that advances in biology and medical technology have raised: e.g., about the beginning and ending of life, genetic engineering and stem-cell research. Required for biology majors but open to other majors.

## PHIL2001

3 Credits

### **Truth**

This course examines claims and theories about the nature of truth in Western and non-Western traditions. The inquiry encompasses a broad inclusion of texts from such philosophic schools and perspectives as Platonism, religious views, rationalism, pragmatism, intuitionism, moral non-cognitivism, current radical views about truth and contradiction and various strands of postmodernism.

## PHIL2008

3 Credits

### **Ethical Issues in the Movies**

Students will watch and discuss films with a view to becoming reacquainted, in depth, with several topics in ethical theory and with specific moral theories. The course covers such phenomena as nihilism, amorality and 20th-century reactions to mortality. Students will examine ethical theories, including subjectivism, moral egoism, moral relativism, utilitarianism, Kant's moral philosophy, social contract and nature rights, virtue ethics and feminist ethics.

## PHIL2050

3 Credits

### **Thinking About the Mind**

This course traces various views and debates about what the mind is. The class studies various schools of thought on the subject and such controversial arguments as the Chinese School Argument and the Zombie Argument.

## PHIL2040

3 Credits

### **Knowledge, Belief and Doubt**

An in-depth look at the notions of knowledge, belief and doubt. Collaterally related topics such as the problem of induction, knowledge of the external world, other minds, testimony and memory and the dilemmas that skepticism presents us with.

## PHIL2102

3 Credits

### **Space and Time**

Have you ever wondered about the meaning of the word "time"? Or about what is meant by "space"? These concepts are elusive and mysterious; some of the most famous thinkers, artists and scientists have written about the meaning of space and time. In this course students study a few fundamental theories about space and time.

Students read the work of philosophers, scientists and science fiction writers. No advanced knowledge of mathematics or physics is required.

## PHIL2201

3 Credits

### **Ancient Philosophy**

The principal philosophers and schools of philosophy from Thales to Hellenistic philosophy (Roman times). Religious and ethical background of Greek philosophy, with primary emphasis on Plato and Aristotle and some consideration of the pre-Socratic, Socratic and post-Aristotelian philosophy.

## PHIL2202

3 Credits

### **Modern Philosophy**

Philosophy from the Renaissance to the end of the 19th century, with emphasis on the influence of science and politics on philosophy. Central issues in 17th- and 18th-century philosophy. Rationalism (Descartes, Spinoza and Leibniz). Empiricism (Hobbes, Locke, Berkeley and Hume). Kant.

## PHIL2203

3 Credits

### **Contemporary Philosophy**

Movements in 20th-century philosophy such as positivism, pragmatism, phenomenology, existentialism, logical positivism, logical analysis and ordinary language analysis, Bergson, Whitehead — studied through representative works.

## PHIL2205

3 Credits

### **Social and Political Philosophy**

Scrutiny of a number of seminal texts in the western political-philosophic tradition. The nature of political authority, legitimization and justice.

## PHIL2207

3 Credits

### **Philosophy of Religion**

The nature and functions of religion, conceptions of the supernatural, proofs for the existence of God, varieties of religious experience, mysticism, immortality and evil.

## PHIL2208

3 Credits

### **Crime and Punishment**

In this course, students read *Crime and Punishment* and selected texts as they pay attention to both the fundamental themes of the work and the background issues and philosophies against which the novel's characters, action and ideas are conceived. The following is a partial list of themes which the course will address: Dostoevsky's *Critique of Modernity*, *Critique of Capitalism* and *Theories of Justice and Punishment*.

# Physical Education

Maxwell Becton College of Arts and Sciences  
Florham Campus

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## PHIL2210

3 Credits

### What is Radical Politics?

Examination of the philosophical underpinnings of recurrent radical political ideologies; defining the concept of radicalism and recognizing its historical shifts; the connection between metaphysical and conceptual systems and ideological movements; comparison and contrast to moderate or non-radical ideologies; and comparison and contrast to radicalisms both of the left and the right. Philosophical texts studied include Plato, Rousseau, Marx, Nietzsche, Locke, Kant, Mill and Rawls.

## PHIL2211

3 Credits

### Philosophy and Film

The aesthetic dimensions of narrative cinema in the classic films of world cinema. Development of various aesthetic theories with the goal of understanding cinema as an art form. In addition, exploration of the methodologies of psychoanalysis, semiotics and certain forms of literary criticism as applied to film.

## PHIL2452

3 Credits

### Philosophy of Law

Overview of the central theories in philosophy of law; how these theories are applied to real-world conflicts between theory, law and government in such contemporary issues as justice and fairness, criminal culpability and punishment, the death penalty, due process, equality, privacy and the First Amendment rights of free speech and expression.

## PHIL2777

3 Credits

### Formal Logic

This is an advanced course in symbolic logic. The class briefly detours through propositional logic and the lower monadic calculus before it continues with relational predicate logic with identity/functions/definite descriptions. Free logic systems and alternative systems with more than the standard quantifiers will be briefly considered. The class moves on to intensional formal languages, covering both natural deduction systems for S1–S5 (and between) as well as Kripke frames and models; noting the problems surrounding completeness results. The class continues with modal predicate logic and examines systems with and without the Barcan formulas. Subjects such as actualist and possibilist quantifiers and Kripke-rigid designation will be discussed. The class ends with non-normal modal systems, a brief nod to fuzzy reasoning and a review of many-valued logics. Note: Satisfies Tier II math-science requirement.

## PHIL2828

3 Credits

### Immortality and Reincarnation

This course examines arguments in support of and against claims that existence can and does continue after death. Relevant texts range from ancient religions and philosophical works to contemporary evaluations of parapsychology. The class will read and discuss representative texts on both sides of the debate on the soul, immortality and reincarnation.

## PHIL3005

3 Credits

### War and Philosophy

Classical and contemporary philosophic texts will be used to study and discuss definitions, causes and theories of war; claims about the nature and alleged inevitability of war; views about how war is to be explained and justified; moral reasoning applied to the initiation and conduct of war; issues of moral responsibility in waging and not waging war; and the rhetorical and logical structure of arguments used by advocates and opponents of war as an institution and of specific wars.

## PHIL3506

3 Credits

### The Problem of Evil

One of the oldest problems to have perplexed human beings everywhere is the problem of evil: Is evil a real thing? What does it mean and how does it become possible? How is evil to be understood or explained? How can we reconcile the existence of evil and unnecessary and undeserved suffering with the notion of an all-powerful, all-knowing and benevolent God? How does the existence of evil affect the human quest for the meaning of life? In this course, students will study philosophical responses to the above and related questions offered by thinkers throughout the ages.

## PHIL3508

3 Credits

### Ethical Issues in the Media

This is an applied “moral reasoning” course with the media as the field from which the students will take their cases. The class will evaluate recent and current cases from journalism, broadcasting, advertisement and entertainment. Some of the issues to be discussed include: What responsibilities do media have toward the public? What kinds of moral dilemmas do news media face in reporting stories and in editorializing and how should they respond? What is the morally responsible way for drawing the line between newsworthy information and advertisement or entertainment? Should news media always defer to political and social actors’ right to privacy? How should special audiences be treated by the news media? Under what circumstances and by application of what criteria should news media censor the outflow of information?

## PHIL4401

3 Credits

### Philosophy Seminar

Intensive study and discussion of selected topics in philosophy which results in the composition and defense of the senior thesis (in consultation with, and upon approval by, faculty member).

## PHIL4498

3 Credits

### Internship

Course integrates classroom study with specific planned periods of supervised learning in relevant employment experiences. Combines learning on the job, University course work and career-development skills.

## PHIL4800

1–3 Credits Each Semester

### Independent Study in Philosophy

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

## PHIL4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

# Physical Education

## Associate Dean's Office

## PHED1101

1 Credit

### Racquetball

Rules and stroke development including serves, kills and defensive strategy — plenty of play — singles, cutthroat and doubles.

## PHED1102

1 Credit

### Badminton

Basic strokes, game rules and strategy. Students are expected to display a reasonable level of proficiency by the end of the course.

## PHED1113

1 Credit

### Golf

Development of a basic consistent swing, emphasizing ball control, is the overall objective. Familiarity with all clubs, rules of the game, as well as the necessary etiquette, also are covered. Equipment, if needed, will be provided by the University.

# Physical Education

Maxwell Becton College of Arts and Sciences  
Florham Campus

## PHED1121

1 Credit

### Volleyball

Basic skills of forearm pass, overhead pass, serve, spike, block, along with offensive and defensive strategy.

## PHED1126

1 Credit

### Jogging for Fitness

Begins with stretching exercises and then builds up from one-fourth to approximately seven miles. Individual goals are set for each student. Nutrition and diet studies are included.

## PHED1133

1 Credit

### Physical Fitness

Geared to the needs of the individual. Includes basic conditioning, isotonic, isometric and those exercises that aid in developing and maintaining muscle vitality and strength.

## PHED1137

1 Credit

### Weight Training

Development of knowledge and skills required for a personalized weight-training program emphasizing the use of the Cybex weight machines and free weights.

## PHED1139

1 Credit

### Cross Training

Use of varied physical activities such as swimming, running and weight training to develop knowledge and skills for lifetime fitness programs.

## PHED1144

1 Credit

### Aerobics

Specific movements designed to improve cardiovascular endurance and general conditioning of the body through enjoyable activities.

## PHED1145

1 Credit

### Swimming

Five basic strokes are covered: freestyle, backstroke, elementary backstroke, sidestroke and breaststroke. Emphasis is placed on a basic program for lifetime fitness and enjoyment. The beginning swimmer is taught privately.

## PHED1147

1 Credit

### Lap Swimming

Development of a safe and effective workout plan useful to an individual's fitness goal. Training concepts such as distance, repetition, interval and Fartek will be explored as well as various aquatic training equipment.

## PHED1149

1 Credit

### Tennis

Fundamental skills of the forehand, backhand and serve. Scoring and court etiquette also are covered. Students are expected to demonstrate an understanding of the above strokes, as well as the game situations to which each applies.

## PHED1150

1 Credit

### Advanced Tennis

Review of the basic skills. Introduction of both singles and doubles strategy using the lob, volley and overhead. Students taking this course should be reasonably proficient in the basic skills and game knowledge.

## PHED1152

1 Credit

### Water Aerobics

Specific movements in the water using resistance equipment to improve cardiovascular endurance and general conditioning of the body.

## PHED1157

1 Credit

### Yoga – Level 1

Astanga Yoga as a means of achieving a healthy body and inner tranquility. The understanding and practice of relaxation, controlled breathing techniques and yoga postures.  
*Fall, Spring*

## PHED1158

1 Credit

### Yoga – Level 2

The course builds on learning from PHED1157 Yoga – Level 1. Sun salutations, pose sequences, balance poses, backbends and inversions will be part of each class.

## PHED1159

1 Credit

### Advanced Yoga – Level 4

Advanced poses and breathing techniques.

## PHED1160

1 Credit

### Yogalates

This course contains a blend of yoga and Pilates moves. It ranges in ability from the introductory level to the ultimate core and stretching workout.

## PHED1161

1 Credit

### Walking/Jogging

This class will focus on the proper techniques for walking, fast walking and jogging. Individual workouts will be designed and practiced during class time both on the gym track and outdoors.

## PHED1162

1 Credit

### Yoga – Level 3

Advanced poses and sequences will be added to movements in PHED1157 Yoga – Level 1 and PHED1158 Yoga – Level 2. The class will increase overall fitness through Vinyasa exercises and core strengthening. Breathing techniques and relaxation exercises will complete each class.

## PHED1196

1 Credit

### Linedance

Previous dance experience is not required. This class will provide the student with a foundation in choreographed dancing. The student will learn dances choreographed for waltz, Latin, hip-hop and East and West Coast swing. All genre of music will be used: Latin, pop, hip-hop, country, as well as student favorites.

## PHED1198

1 Credit

### Zumba

A Latin dance-fitness program based on interval training.

## PHED1436

3 Credits

### CPR and Emergency Care

This course teaches the student the knowledge and practical skills needed to respond to various emergency situations: burns, wounds, respiratory and cardiac problems, broken bones, poisoning, etc. Certification upon successful completion of course.  
*Summer*

## PHED1862

1 Credit

### Body/Mind Fusion

Movement of the body to reduce the stress of the mind. Using methods to recognize the signs of stress and learning the proper models of exercising to relieve various forms of stress.

## PHED4457

1 Credit

### Boxercise

Intense cardiovascular workout using a boxer's training techniques to improve strength, agility and cardio-endurance.

## PHED4460

3 Credits

### National Coaching Certification

Development of an athlete-centered coaching style using the basics of sport philosophy, psychology, physiology and pedagogy. Sport and risk management and first aid also is included.

# Physics

Maxwell Becton College of Arts and Sciences  
Florham Campus

## PHED4462

3 Credits

### The Olympics: Yesterday to Today

This course will examine the cultural, historical, economical, political, philosophical and social aspects of the Olympic movement.

## PHED4463

1 Credit

### Tai Chi

Ancient system of meditation and physical exercise following a natural pattern of gradual movements and body rotation to develop flexibility, stamina, energy, powers of concentration, serenity, etc.

## PHED4465

1 Credit

### Pilates Matte Class

Focuses on Pilates floor exercises that will improve core (abdominal and back) stability, flexibility and strength. Students will work to increase coordination, breath capacity and moving from their center.

# Physics

*Department of Mathematics,  
Computer Science and Physics*

## PHYS1001, PHYS1011, PHYS1021

PHYS1002, PHYS1012, PHYS1022

8 Credits (4 Credits Each Semester)

Lecture 3 hours; Laboratory 3 hours;

Recitation 1 hour

### General Physics I, II

This course is for students in the biological sciences and premedical curricula and for nonscience majors desiring two semesters of physics. Contemporary topics such as relativity, nuclear, atomic and molecular structure follow classical topics such as mechanics, waves, heat, electricity, magnetism and light. The treatment is generally quantitative but without calculus. Prerequisite: intermediate algebra.

Fall, Spring

Fee

## PHYS1005, PHYS1015

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Physics in the Modern World: How Things Work

A study of the principles of physics through an examination of various modern technical devices such as televisions, refrigerators, motors, etc.

Fall, Spring

Fee

## PHYS1005

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Basic Electronics

An introduction to electricity, basic electronics, electronic devices and their applications. The course will provide a level of essential knowledge and practical experience, through laborato-

ry work, for the students to better understand and utilize the electronic tools of their disciplines and electronic products encountered in their general life environment.

Spring

## PHYS1006

4 Credits

### Basic Electronics with Applications

An introduction to electricity, basic electronics, electronic devices and their applications, stressing traditional and modern devices such as computers, mobile communications and home theater. The course will provide a level of essential knowledge and practical experience through theory and laboratory work. Students will then better understand and utilize the electronic tools of their disciplines as well as electronic products encountered in their general life environment. Corequisite: PHYS1015 Lab: Basic Electronics with Applications.

## PHYS1007

2 Credits

### Physics of Medical Science

This course shows how the basic laws of physics are applied to medicine. Topics will include conservation laws, biomechanics, pressure and hydrostatics, sound and hearing, heat and thermodynamics, optics and vision, applications of electrostatics to medicine, current electricity and magnetism, electric and electronic circuits and application to medical instrumentation, atomic and nuclear physics and their application in medicine and radiology.

## PHYS1010

4 Credits

### Physics of Sustainable Energy

Sustainable energy is one of the great challenges of this generation and will require important decisions by society. In this course, students will learn about the basic physics, such as mechanics, electricity and magnetism, thermodynamics, semiconductor physics and nuclear physics, which underlies sustainable-energy generation and consumption. These topics will be explored as appropriate in the context of electricity generation via wind, solar, hydro and nuclear energy. Corequisite: PHYS1020 Physics of Sustainable Energy Lab.

## PHYS1015

0 Credits

### Lab: Basic Electronics with Applications

Through hands-on experience, students learn the basic skills of electronics such as soldering, reading schematic diagrams and the use of electronic measuring instruments including digital voltmeters, oscilloscopes, power supplies and signal generators. Students build basic electronic circuits using transistors, resistors, capacitors, diodes, LEDs, integrated circuits and other components and make measurements to confirm

their functions as explained in the lecture section of the course. Other experiments include basic optics, light and color; house and appliance wiring, computer maintenance and upgrading. Electronic devices such as CD and DVD drives, digital cameras, monitors, cell phones, iPods and computers are disassembled and examined to identify the mechanical and electronic components and understand how those devices perform their functions. Corequisite: PHYS1006 Basic Electronics with Applications.

## PHYS1020

0 Credits

### Physics of Sustainable Energy Lab

Lab associated with PHYS1010 Physics of Sustainable Energy. In this course, students will learn about the basic physics, such as mechanics, electricity and magnetism, thermodynamics, semiconductor physics and nuclear physics, which underlies sustainable-energy generation and consumption. These topics will be explored as appropriate in the context of electricity generation via wind, solar, hydro and nuclear energy. Corequisite: PHYS1010 Physics of Sustainable Energy.

## PHYS1125, PHYS1025;

PHYS1124, PHYS1024

8 Credits (4 Credits Each Semester)

Lecture 3 hours; Laboratory 2 hours

### Physical Science I, II

Elements of five physical sciences are covered in a descriptive way. Physics: motion, force, gravitation, energy, waves, heat, electricity, light, atoms and nuclear energy. Chemistry: the elements, the periodic table, chemical reactions, inorganic and organic compounds. Geology: the earth's crust, interior and evolution. Meteorology: the atmosphere, climate. Astronomy: the solar system, stars, galaxies and the universe.

Prerequisite: one year of high school algebra.

Fee

## PHYS1125, PHYS1025

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Astronomy

The composition of matter; the principles of motion, including orbital motion; the nature of light; the principles of optics; and the operation of telescopes and auxiliary instruments. Topics in astronomy include stellar astronomy, celestial coordinates, the solar system and its evolution, types of stars, galaxies and the universe. Prerequisites: elementary algebra and geometry.

Fall, Spring

Fee

## PHYS1126, PHYS1026

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Earth Physics

A laboratory science elective intended for liberal arts students, life science and non-science majors. Can be taken before or after PHYS1125,



# Physics

Maxwell Becton College of Arts and Sciences  
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PHYS1025 Astronomy. A topical treatment, not highly mathematical. The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants.

**PHYS1201, PHYS1202****3 Credits****Lecture 2 hours; Laboratory 2 hours****Physics for the Global Citizen**

This course provides a basic understanding of physics knowledge and concepts within the context of everyday life and global issues. Topics addressed will include motion, mechanics, thermodynamics, electricity, nuclear energy and modern electronics. There will be an emphasis on sustainable energy, alternate power sources, the environment and other issues relevant to everyday life. Students will develop a basic understanding of physics concepts and being to understand the practical applications of physics.

*Fee***PHYS2003, PHYS2013, PHYS2023;****PHYS2004, PHYS2014, PHYS2024****8 Credits (4 Credits Each Semester)****Lecture 3 hours; Laboratory 3 hours;****Recitation 1 hour****General Physics with Calculus I, II**

A calculus-based course for students majoring in physics and other sciences. The first semester covers mechanics, heat and sound; the second semester covers electricity, magnetism, light and atomic physics. Prerequisites: for PHYS2003, PHYS2013, MATH1203 Calculus I; for PHYS2004, PHYS2014, PHYS2003, PHYS2013 General Physics with Calculus I and MATH2202 Calculus II.

*Fall, Spring**Fee***PHYS2250****4 Credits****Electronics I**

The first half of a two-semester course on the fundamentals of electronic circuit theory and practice. The course will concentrate on analog components and devices, DC and AC circuits, diodes, transistors, operational amplifiers and oscillators. Prerequisite: PHYS2004, PHYS2014 General Physics with Calculus II.

**PHYS2800****1–6 Credits****Sophomore Independent Study**

Independent study in physics and photonics at the sophomore level.

**PHYS3206****4 Credits****Modern Physics**

A third semester of a calculus-based physics sequence for science and engineering majors. Topics normally include special relativity, end of

classical physics, photons and quantization, wave functions and uncertainty, one-dimensional quantum mechanics, atomic physics, nuclear physics and elementary particles. PHYS2004, PHYS2014 General Physics with Calculus II. Corequisite: PHYS3216 Lab: Modern Physics.

**PHYS3210****3 Credits****Advanced Mechanics**

A study of Newton's laws applied to the motion of particles and systems of particles. Topics will include forced and damped harmonies, oscillators, central-field motion, collisions, conservation laws, Lagrangian mechanics, Hamilton's equations and rigid body dynamics.

**PHYS3216****0 Credits****Lab: Modern Physics**

Experimental physics at an advanced undergraduate level. Includes working in an increasingly independent format on a series of selected projects from a variety of physics areas such as geometrical optics, interference and diffraction, spectroscopy, lasers, fiber optics and quantum phenomena. Specific attention is paid to experimental design, laboratory techniques, computer data acquisition and analysis and error propagation and analysis. Corequisite: PHYS3206 Modern Physics.

**PHYS3220****3 Credits****Mathematical Methods – Physics**

An introduction to methods used in solving problems in physics and other sciences, including calculus of variations and extremum principles, orthogonal functions and Sturm-Liouville problems, Fourier series, series solutions of differential equations, partial differential equations of physics, Green's function methods of solution, nonlinear equations and chaos theory.

**PHYS3240****4 Credits****Optics**

This course will introduce the student to the most significant light phenomena and the basic physical concepts that underlie their interpretation. Topics covered will include paraxial optics, the wave equation and properties of wave motion, electromagnetic waves, dispersion, absorption, coherences, interference, diffraction, geometrical optics, optical systems and lasers.

**PHYS3241****0 Credits****Advanced Experimental Methods in Optics/Photonics**

This course focuses on advanced laboratory experiments in optics and photonics. It will cover the mechanism of geometrical optics and imaging, the characteristics of the Fourier transform of an optical system, the concept of the frequen-

cy spectrum of optical information processing, the physical effect of frequency filtering, the principle of color imaging and the realization of the computer-aided color decoding of an optical image.

**PHYS3250****3 Credits****Thermodynamics**

This course is an introduction to classical thermodynamics and statistical mechanics. Some of the basic concepts such as temperature, heat, internal energy, entropy and multiplicity will be introduced. Also covered will be heat engines, phase transformations, the partition function and statistical thermodynamics, including Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac statistics, and their applications to an ideal diatomic gas, electrons in metals and monatomic crystals.

**PHYS3277****3 Credits****Solid State Physics**

Fundamental properties of matter in the solid state from quantum mechanical foundations. Crystal structure, lattice vibrations and phonons, lattice imperfections, free electron and band theories of metals and semiconductors, the Fermi surface; electrical, magnetic and thermal properties of matter.

**PHYS3530****3 Credits****Electricity and Magnetism I**

The first half of a two-semester course in the study of advanced concepts in electricity and magnetism with the use of calculus and vector calculus. Areas covered will include electrostatics, Gauss' Law, charges in motion, magnetic fields in vacuum and matter, magnetostatics, electromagnetic induction and Maxwell's equations.

**PHYS3800****1–6 Credits****Junior Independent Study**

Independent study of physics and photonics at the junior level.

**PHYS4250****3 Credits****Quantum Mechanics I**

A study of the concepts, postulates and applications of quantum mechanics (QM). Areas covered will include the Schrödinger equation (SE); the use of operators; application of SE to simple quantum systems; QM postulates; variational and perturbation methods; spin and angular momentum; and topics on atomic, molecular and nuclear structure, bonding, intermolecular forces and reaction mechanisms. Prerequisites: MATH3318 Differential Equations and PHYS3206 Modern Physics.

# Psychology

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## PHYS4401

2 Credits

### Physics Seminar

A junior-senior seminar meeting weekly to discuss current and/or historical topics in physics. Oral presentations by students on selected readings from such areas as experimental or theoretical research, government-science policy, pseudoscience and physics education. Prerequisites: PHYS2003, PHYS2004 General Physics with Calculus I, II and PHYS3206 Modern Physics.

## PHYS4450

1–3 Credits

### Selected Studies in Physics

Studies in special areas of current interest to physics.

## PHYS4800

1–6 Credits

### Senior Independent Study – Physics

Independent study in physics and photonics at the senior level.

# Psychology

## Department of Psychology and Counseling

## PSYC1201

3 Credits

### General Psychology

An introduction to the field of psychology and its methods of research. Topics included are the brain and its relation to behavior and mental processes, sensation and perception, states of consciousness, learning, memory, intelligence, human development, personality, stress and coping, mental disorders and their treatment and the influence of people on each other.

Fall, Spring

## PSYC2210

4 Credits

### Psychological Statistics

An introduction to the basic descriptive and inferential statistical procedures that are useful to the psychologist in the design and analysis of research methods. Prerequisite: PSYC1201 General Psychology.

Fall, Spring

## PSYC2211

4 Credits

### Research Methods

An introduction to the methods of scientific experimentation in psychology by means of laboratory experiments, studies of problems in design and control of experiments and analysis of the experimental literature. Prerequisite: PSYC2210 Psychological Statistics.

Fall, Spring

## PSYC2255

1–3 Credits

### Positive Psychology

Positive psychology is the study of how human beings prosper; a study of human strengths, optimism, happiness, hope and resiliency. This course is largely experiential, including many in-class activities and many assignments between classes to apply classroom principles to the real-life setting. The course invites students to identify core human-character strengths and virtues and to use these strengths to promote and maintain well-being and happiness.

## PSYC3001

3 Credits

### Human Development (Child)

A study of the growth and development of children with respect to sensorimotor, intellectual and social behavior; scientific findings and theoretical viewpoints with respect to their implications concerning the child for the family, school and community. Prerequisite: PSYC1201 General Psychology.

Fall, Spring

## PSYC3004

3 Credits

### Psychology of Aging

An exploration of the changing views of aging from social, developmental, personality, cognitive and psychotherapeutic perspectives. Prerequisite: PSYC1201 General Psychology.

Fall

## PSYC3005

3 Credits

### Abnormal Psychology

An introduction of basic concepts and theories of abnormal psychology exploring both historical and current perspectives with an inclusion of multicultural considerations. A discovery of the process and importance of clinical assessment, study of clinical and personality disorders and association to cause and treatment. Prerequisite: PSYC1201 General Psychology.

Fall, Spring

## PSYC3008

3 Credits

### Rehabilitation Psychology

The study of the psychological effects of trauma and disability on individuals. Diagnosis, treatment and intervention strategies will be explored. Prerequisite: PSYC1201 General Psychology.

Fall

## PSYC3011

3 Credits

### Group Dynamics

A study of the dynamics of how people behave in groups and the relevant factors affecting this behavior. Topics included are: communication and process variables, structural factors, reasons for membership, leadership in groups, problem-

solving methods and factors, environmental factors and specialized groups (e.g., therapy groups, focus groups). Prerequisite: PSYC1201 General Psychology.

Spring

## PSYC3012

3 Credits

### Crisis Intervention

The focus is on the theoretical and practical responses to traumatic events (e.g., crime, domestic violence, natural disasters, medical conditions, substance abuse, suicide and suicide attempts). It addresses the strategies utilized by treatment providers and “first responders” (police and firemen).

## PSYC3013

3 Credits

### The Psychology of Developmental Trauma

Childhood trauma leaves irreparable damage in its wake. This course will examine the nature and extent of developmental interpersonal trauma, causes, effects and prevention, intervention and treatment. With the proposed diagnostic changes in the diagnostic and statistical manual (DSM-V), this course will be interesting for anyone considering clinical work in psychology or counseling.

## PSYC3014

3 Credits

### Psychology in Film

The course is designed to help students explore the range of healthy and unhealthy functioning based on current theories and research and as depicted in the cinema. Students will critically evaluate the accuracy and inaccuracy of the human condition in movies as well as develop diagnostic abilities via observation of movie characters.

## PSYC3015

3 Credits

### Theories of Personality

This course is designed to help students understand the broad approach to personality theory. Emphasis will be placed on different theoretical viewpoints, personality research and the practical application of personality theories. Prerequisite: PSYC1201 General Psychology.

Fall, Spring

## PSYC3050

3 Credits

### Advanced Experimental Psychology

A further inquiry into the nature of scientific research in psychology. More complex design procedures and statistical analyses are introduced. An independent project will be required. Prerequisite: PSYC2211 Research Methods.

Fee

# Psychology

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**PSYC3031****3 Credits****Advanced Sensory Processes**

The course explores the underlying psychobiological and sensory processes. This class uniquely highlights the psychology of elegant dining by presenting principles that make learning and eating ultimately memorable and rewarding. The core of the class material is a presentation of how one's senses work, neuroscience explanations of feeding and drinking underlying health and pathology as well as an exploration of world cuisines. The laboratory portion of the class features four evenings of sampling global cuisine items.

*Fee***PSYC3032****3 Credits****Physiological Psychology**

The study of the relationship between aspects of behavior and physiology. Topics include basic neuroanatomy, neurophysiology and the effects of drugs upon behavior. Prerequisite: PSYC1201 General Psychology.

**PSYC3080****1-3 Credits****Contemporary Issues (Leadership)**

This course will provide exposure to various issues of major concern in psychology today. Specific subjects and number of credits offered will be announced in the semester's course-offering list. Prerequisite: PSYC1201 General Psychology.

**PSYC3302****3 Credits****Human Development (Adolescent)**

A study of the growth and development of adolescents and adults with respect to social, emotional, intellectual and physical behavior; developmental characteristics, goals and personal and interpersonal factors of psychological self-support with respect to their implications concerning education and/or guidance. Prerequisite: PSYC1201 General Psychology.

*Fall, Spring***PSYC3310****3 Credits****Social Psychology**

A study of the individual's behavior and experiences under the influence of social processes and institutions; socialization, role perception and role behavior; social norms and conformity; interpersonal attraction, social power, leadership. Prerequisite: PSYC1201 General Psychology.

*Fall or Spring***PSYC3315****3 Credits****The Dark Side of Behavior at Work**

An exploration of the various forms of counter-productive workplace behaviors including sexu-

al harassment, violence, bullying, theft, sabotage and work withdrawal. Emphasis will be on understanding not only the form of the behavior but also the factors that lead to such behavior (e.g., personality, organizational culture, organizational structures) as well as the impact on the organization and co-workers. Prerequisite: PSYC1201 General Psychology.

**PSYC3314****3 Credits****Group Development**

The place of the small group in a democratic society, the roles played by the various members of the group and the interactions taking place are given particular attention. An attempt is made to bring out the various aspects of the group by relating them to the actual experiences of the members as they attempt to apply group discussion to the solving of selected problems. Students will be given an opportunity to use the third hour of class to practice group-development techniques and skills.

**PSYC3316****3 Credits****Mass Communications**

Study of social-psychological impact of the media upon the quality of life of the individual, the community and the world. Topics include negative impact of the media, violence and advertising and positive-impact public service and education; potential for development of media in more prosocial directions for the benefit of society. Prerequisite: PSYC1201 General Psychology.

**PSYC3317****3 Credits****Psychology and the Law**

Application of psychological principles to legal problems. Analysis and implications of court decisions. Current controversies: insanity defense, jury selection, persuasive techniques, sentencing, competency, use of hypnosis, capital punishment, psychological testing. Conducting forensic interviews will be incorporated.

**PSYC3318****3 Credits****Psychology of Everyday Persuasion\***

The 21st century is characterized by "information overload." Individuals in Western democracies are subject to influence and manipulation of representations in all their forms. Democracy, built upon persuasion, has become viewed with cynicism. This course investigates the historical development of the techniques used by public and commercial organizations. Issues such as advertising, public relations will be among the topics studied. Students will be assisted to develop techniques for detecting and resisting propaganda while on the course.

*\*Offered at Wroxton College.***PSYC3320****3 Credits****Managerial Psychology**

A study of psychological factors affecting human behavior in an organizational context. Topics examined include communication, perception, group dynamics, individual differences, power and influence in organizations, organizational culture and conflict in organization. Prerequisite: PSYC1201 General Psychology.

*Spring***PSYC3321****3 Credits****The Interview**

A study of interviewing principles and techniques, with emphasis on the problem-solving interview, the selection interview and the information-gathering interview. Recommended for students interested in working in the education, business, psychology and clinical areas. Prerequisite: PSYC1201 General Psychology.

**PSYC3322****3 Credits****Industrial Psychology**

This course provides an overview of the field of industrial psychology (i.e., the scientific study of the workplace) and its applications. Rigor and methods of psychology are applied to such topics as job analysis, personnel selection, job performance and workplace behavior. Students will adopt the scientist-practitioner model, studying psychological research and theory as a science while learning how derived psychological principles are applied in work settings. Prerequisite: PSYC1201 General Psychology.

*Fall, Spring***PSYC3327****3 Credits****Career Exploration**

This course will expose students to possible career opportunities that incorporate their academics, skills, interests, values and personality. Discussion will be on career-development theories and how they apply to job satisfaction. Assessment tools that incorporate personality, values, needs and interests into career satisfaction will be administered and evaluated. Students will be familiarized with all tools available for career development and exposed to the challenges of choosing a career using objective measures.

**PSYC3331****3 Credits****Theories of Learning**

Basic theories and principles of learning such as conditioning, retention, transfer and problem solving will be studied. Prerequisite: PSYC1201 General Psychology.

*Fall, Spring*

# Psychology

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## PSYC3333

3 Credits

### Sensation and Perception

A study of the theories and issues in the areas of sensation and perception, with emphasis on factors affecting stimulus selection and organization. The processes of detection, discrimination and recognition and major areas of research such as the effects of learning and motivation on perception, and the perception of time, space and motion will be considered. Prerequisite: PSYC1201 General Psychology.

## PSYC3334

3 Credits

### Psychopharmacology

Study in the relationship between drugs and behavior, especially maladaptive behavior and research in human biochemical changes. Prerequisite: PSYC1201 General Psychology.

## PSYC3355

3 Credits

### Cognitive Psychology

Examination of experimental study of topics of attention, memory, imagery and thought as it relates to language, cognitive development and the development of conscious awareness. Prerequisite: PSYC1201 General Psychology.

## PSYC3340

3 Credits

### Psychometrics

This course presents the general theory and practice of psychological testing and considers basic concepts. A survey of representative tests of personality, aptitude, interests and intelligence will be presented. Prerequisite: PSYC1201 General Psychology.

## PSYC3345

3 Credits

### Educational Psychology

A survey of current psychological theories and practices, with special emphasis on their educational applications and implications. Topics include personality development, learning, motivation, perception, measurement and evaluation, teacher-pupil relations, the psychology of the teacher and of the psychologist. Prerequisite: PSYC1201 General Psychology.

## PSYC3359

3 Credits

### Sport Psychology

Learning, motivation and social interaction of sport. Performance enhancement through mental training with the diagnosis and treatment of performance burnout. Prerequisite: PSYC1201 General Psychology.

## PSYC3360

3 Credits

### Forensic Psychology

A study of the basic legal principles will be examined within the context of their relationship

to psychology. The following subfields will be covered: criminal profiling; violence of a personal, sexual and domestic nature; jury selection; and psychological autopsies.

*Fall, Spring*

## PSYC3361

3 Credits

### Cross-cultural Psychology

This course will examine the theoretical, empirical and applied issues in the cross-cultural study of human social behavior. It also will examine aspects of behavior that are universal and others that are culture specific. The class will explore how and why behavior differs across cultures and the impact of these cultural differences on psychological theory and application. Through discussions, readings, experiential learning activities and a short-term, study-abroad component (in Wroxton College, England), students will be able to develop a broader, global perception of contemporary psychology. The course will assist in developing critical thinking tools with which to analyze and to evaluate psychology from various ethnic, national and religious groups.

## PSYC3510

3 Credits

### Death and Dying

A cross-cultural overview of death, dying and bereavement. Topics will include different cultural practices as they apply to individuals and communities. Suicide, assisted suicide, hospice care worldwide, caregivers for Alzheimer's disease and dementia will be discussed. Prerequisite: PSYC1201 General Psychology.

## PSYC4130

4 Credits

### Behavioral Neuroscience Methods

This blended seminar focuses on cutting-edge developments in understanding brain functions. By definition, neuroscience is interdisciplinary and international in its scope. Topics include the biological basis of pain, intelligence, drug action, addiction, mental illnesses and genetic influences on behavior. Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods.

## PSYC4290

3 Credits

### Psychology Seminar

Special studies and reports dealing with persistent problems in psychology. Prerequisite: seventh- or eighth-semester standing.

*Spring*

## PSYC4291

3 Credits

### History and Systems of Psychology

This course provides an overview of the history of psychology, its antecedents and philosophies, the basic premises of the major schools and sys-

tems and the contributions of the theorists. It will address important issues such as the nature-nurture controversy and the practical applications of the various theoretical orientations.

Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods.

*Spring, Fall*

## PSYC4293

3 Credits

### Introduction to Art Therapy

This course will study the history and development of art therapy, the relationship between psychotherapy and art, the use of art as a diagnostic tool and art-therapy methodologies. This course will help students achieve a greater awareness of their own creative strengths and how to utilize them in a therapeutic setting. (Equivalent to ART4293 Introduction to Art Therapy.)

## PSYC4430

1-3 Credits Each Semester

### Selected Studies in Psychology

Studies in an area of psychology.

*Fall, Spring*

## PSYC4447

3 Credits

### Medical Psychology

The course provides an intensive understanding of brain function and dysfunction. Emphasis will be on the need for proper diagnosis and appropriate therapeutic strategies. Prerequisite: PSYC1201 General Psychology.

*Fall, Spring*

## PSYC4477

1-3 Credits Each Semester

### Honors Research and Thesis

(Psychology)

*Fall, Spring*

## PSYC4498

3 Credits

### Internship in Psychology

The integration of academic study with specific planned periods of supervised learning in relevant employment experiences. An internship combines learning on the job, University course work and career-development skills. Grade point ratio (GPR) of 3.00 required and junior or senior status. Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods.

*Fall, Spring*

## PSYC4800

1-3 Credits Each Semester

### Independent Study in Psychology

Studies in an area of psychology under the direction of a specific faculty member after consultation with the department chairperson.

*Fall, Spring*

# Sign Language • Sociology

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## PSYC4900

3–6 Credits

### Faculty/Student Research

Members of faculty engage in research projects with selected students with the goal of professional publication or presentation.

### Graduate Courses

Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the department chairperson. Interested students should see the *Graduate Studies Bulletin* for list of courses and descriptions.

## Sign Language

*Department of Literature,  
Language, Writing and Philosophy*

### LANG1001

3 Credits

#### American Sign Language I

The course is designed to introduce the student to American Sign Language, the visual-gestural language of deaf persons, and deaf culture. The course will develop receptive and expressive communications skills with incorporation of visual-gestural techniques, basic rules of grammar, syntax and some cultural features of the deaf community. Note: American Sign Language does not fulfill modern language requirement.

### LANG1002

3 Credits

#### American Sign Language II

This course continues development of American Sign Language and its application within the deaf community. Taught without voice, it stresses development of conversational skills with emphasis on expanding vocabulary and expressive skills within four basic categories: cultural awareness, grammatical features, vocabulary development and conversational skills. Prerequisite: LANG1001 American Sign Language I. Note: American Sign Language does not fulfill modern language requirement.

## Sociology

*Department of Social Sciences  
and History*

### SOCI1201

3 Credits

#### Introduction to Sociology

An introduction to sociology that explores society and culture, groups and organizations, socialization, deviance, social stratification, race and ethnicity, the family and education. (Equivalent to CMLGY1201 Introduction to Sociology.)

### SOCI2203

3 Credits

#### Methods in Social Research

An introduction to the methods of social research: research design, development of testing instruments and sample collection and analysis of data and preparation of reports. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

### SOCI2204

3 Credits

#### Qualitative Research Methods

Provides students with practical research skills which will enhance their competitiveness in the job market. The course helps students design qualitative research projects using a variety of techniques such as interviews, ethnography, focus groups and content analysis. In class, students will develop research goals, observe data collection and practice conducting interviews and focus groups.

### SOCI2248

3 Credits

#### Globalization, Culture and Identity

An exploration of the phenomenon of globalization, including its effects on understanding contemporary ethnic, national and cultural identities. The course also examines the impact of technological developments in communication and transportation on our “global village” culture.

### SOCI2506

3 Credits

#### Crime and Criminology

This course provides an understanding of crime and criminal justice. Students will examine theories of crime, individual and group criminal behavior and aspects of criminal justice systems from American and global perspectives. (Equivalent to CMLGY1306 Introduction to Crime and Criminology.)

### SOCI2507

3 Credits

#### Social Deviance

What is considered deviant behavior and how do certain behaviors become deviant in the eyes of society? This class will examine the social construction of deviance and the different theoretical perspectives that explain deviance. Certain forms of deviance will be examined critically, including drug use, sexual deviance and suicide. (Equivalent to CMLGY2507 Deviance and Social Control.)

### SOCI2508

3 Credits

#### Gender and Deviance

Exploration of gendered notions of deviance; relationships and absence of relationships between deviant social behavior — such as crime, social control and punishment — and masculinity and femininity. Prerequisite: SOCI1201 Introduction to Sociology.

### SOCI2510

3 Credits

#### Social Problems

Examines the historical and sociological roots of critical social problems such as poverty, racism, sexism, crime, etc.

### SOCI2514

3 Credits

#### Sex, Knowledge and Power

Sociological exploration of interplay of sex, sexuality, forms and sources of knowledge and power/power relations.

### SOCI2516

3 Credits

#### Sociology of the Family

A study of the American family using comparative materials from other societies. Included are ethnic and class differences in family life and recent developments in family theory and related research.

### SOCI2517

3 Credits

#### Children and Society

Examines the social and historical construction of childhood, as well as related social issues concerning children in the U.S. and other countries.

### SOCI2519

3 Credits

#### Nationalism and Ethnicity

The course will explore the various meanings of nationalism and ethnicity, historically and in more recent context, and provide examples of where these phenomena have been particularly evident. Special emphasis will be put on the power of modern nationalism as has become all too apparent in various regions of the world including the former Yugoslavia, the Middle East and parts of the Third World. Also, the course discusses nationalism as a political force which has often combined with ethnicity to create conflicts that have had frightful consequences.

### SOCI2750

3 Credits

#### Men and Masculinities

Being a man is not simply the result of a biological combination of chromosomes, hormones and sex organs. It is also the result of specific cultural understandings of what it means to be a *man* in different societies. These cultural understandings are never fixed and change in space and time creating different configurations of masculinity. The goal of this course is to engage with these transformations in order to better understand what it means to be a *man* in contemporary society. The class will do so by closely analyzing the meaning of masculinity in today's world here in the United States but also in other parts of the world, by exploring how these ideas have changed over time, and finally, by investigating the role played by different social forces, such as race, ethnicity, class, nationality and sex-

# Sociology

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uality, in creating, not one, but multiple forms of *masculinity*. In addition, the class will conduct an intersectional exploration into how masculinity is embodied and lived out in American cultures, sports and media.

## SOCI2805

3 Credits

### Contemporary Social Issues

A survey and analysis of major current issues in American and international societies and cultures, including such topics as poverty, social justice, culture change and the global economy. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI2900

3 Credits

### Artificial Intelligence, Technology and Social Change

Recent developments in technology have created a paradigm shift in societal culture, in the United States and across the globe. This course discusses the impact of human innovation on various forms of behaviors, from modes of consumption through fast-food hubs, to drive-through clinics, banking, online shopping, politics and marriage, to distant learning and interpersonal communication. It also discusses the meaning and impact of technology on traditional social institutions and demonstrates how the recent technologies have blurred the distinction between public and private, rendering individual privacy obsolete. The theoretical goals of this course include raising student awareness of how technology has changed our sense of space, time and social (local and international) relations. In addition, the course aims to help students critically approach the use of technology. Students will be introduced to concepts and theories of social change and to theories on the impact of technology on many social spheres of life across several cultures, e.g. developed and developing countries.

## SOCI2901

3 Credits

### World on the Move: Contemporary Migration

Over the last four decades, migratory flows both at the global and regional level have changed the face of the societies people live in. This is true for the United States but also for many other countries of the Global North. In this class, students will analyze the reasons behind international migrations and the role that different social actors play in creating, shaping and defining contemporary migration flows. They will also question: Why do people migrate across international borders? Can states control migration, including “unwanted” migrants? And how do people understand the politics of immigration? The analysis of these questions will also help students examine often taken-for-granted

conceptions of nationhood, citizenship and nation-state. The course is anchored in the U.S. case but because people live in a world that is increasingly more integrated, the class will also explore migratory flows and policies in other countries and regions of the world.

## SOCI2950

3 Credits

### Identity Puzzle

“Who am I?” The answer to this question is not simple. Some aspects of one’s identity, such as one’s name, are most often given at birth; others such as occupation, gender, social status, political affiliation, etc., come later. In simple words, identity is the product of multiple forces. It is the product of social and individual claims. Importantly, there is no match between how people perceive themselves and how others perceive them. From a historical perspective, some aspects of identity, such as race, gender, religion, have been more significant than others vis-a-vis access to economic, social and political resources in a given society. These are some of the subjects this course focuses on. With the use of a variety of materials, such as novels, movies, journal articles, case studies, students will learn about various experiences of individual as well as collective identity in the United States and internationally.

## SOCI3001

3 Credits

### Minorities in the Middle East

The course provides a comprehensive overview of the various minority groups throughout the Middle East. It discusses the political, social, economic and cultural life of those groups and their relations to majority groups within those countries. Some of the case studies included in this course are Egypt, Israel, Turkey, Iraq and Sudan.

## SOCI3021

3 Credits

### Classical Social Theory

A critical study of the classical theories of society as exemplified in the work of sociologists such as Marx, Durkheim, Weber and Simmel. The course examines the historical development of sociology as a specific field of inquiry. Prerequisite: SOCI1201 Introduction to Sociology or permission of the instructor.

## SOCI3022

3 Credits

### Contemporary Social Theory

An examination of a variety of modern and contemporary social theories including structural-functionalism, exchange, symbolic interactionism and its variants, conflict theory, neo-Marxism, critical theory, feminism and post-modernism. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI3030

3 Credits

### Gender in the Contemporary World

This class will introduce students to issues of gender worldwide, drawing on different disciplines to explore the significance of gender and its construction in different societies. The goal is to enable them to think critically about gender in relation to globalization, the organization of social life on a global scale and the growth of a global consciousness.

## SOCI3250

3 Credits

### Nationalism and Schooling

The course discusses the multiple functions schooling plays in the process of national identity formation. It starts with introducing the student to the complex and conflicting functions of public education in contemporary societies. Then, it discusses the various meanings of national identity and the way identity in general is constructed. Following these discussions is an analysis of three international case studies. The case studies demonstrate both the application of theories of education and nationalism in the analysis of school textbooks. The course concludes with a presentation of the students’ short research projects.

## SOCI3308

3 Credits

### Drugs in American Society

The social and cultural aspects of drug use in American society. Emphasis on the causes and consequences of past and present control strategies. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI3310

3 Credits

### Juvenile Delinquency

This course explores the juvenile justice system in the United States, including the role of the courts, police and corrections. Current empirical evidence regarding trends in juvenile delinquency is provided, along with an examination of theoretical explanatory models. Juvenile delinquency is understood within the larger social contexts including the family.

## SOCI3312

3 Credits

### Ethnic and Race Relations

Analysis of theories of race, with a focus on historical and cultural antecedents. Race in its urban context and sociological ramifications. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI3313

3 Credits

### Social Inequality

Examines inequality in the American social structure, with an emphasis on social class. Race

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and gender inequalities are also considered, as are comparisons with social inequality in other contemporary societies.

## SOCI3314

3 Credits

### **Sociology of Gender**

An analysis of differentiation and stratification on the basis of gender. How definitions of femininity and masculinity are socially created, the relation between sexuality and gender. How gender stratification organizes culture, institutions and social control. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI3350

3 Credits

### **Crime and Inequality**

The study of the relationship between social inequality, crime and the criminal justice system. How inequalities of social class, gender, race and ethnicity affect and are affected by crime and the criminal justice system.

## SOCI3355

3 Credits

### **Sociology of Health and Illness**

The social variables surrounding physical and mental health, including study of the medical profession, the economics and politics of health care and the dilemmas arising from new medical technologies.

## SOCI3357

3 Credits

### **Social Movements and Social Change**

The course explores how ordinary citizens join forces to form social movements and bring about social change in their societies. The course uses various sociological perspectives to examine how social movements form, what strategies they employ and how they accomplish their goals. It discusses local, regional and global social movements from the Middle East, Latin America, United States, etc., aiming at bringing about social change in the economy, politics, the environment, gender and racial relations.

## SOCI3344

3 Credits

### **Schools and Society**

An examination of the emergence of modern school systems and the social and ideological roles of schooling in a complex society. Attention is given to the educational systems as arenas of social and political conflict. Sociological theories of education and schooling are used to evaluate current issues in education including multicultural education, bilingual education, school prayer and creationism, government support of private education, schooling and social class, integration and segregation.

## SOCI3351

3 Credits

### **Urban Sociology**

The growth of the economic, political and social organization of American urban institutions; the social structure of the city, suburbia and metropolitan regions, effect of urban life on the individual. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI3355

3 Credits

### **Social Welfare Policy**

An examination of American social welfare policies and their history, values and politics. Contemporary social welfare issues, including poverty, housing, family problems and race relations, are discussed. The course will focus on two questions: What are the objectives of social policy and how well are they being met? and What light does sociological knowledge shed on these issues?

## SOCI3362

3 Credits

### **Work and Occupations**

The social significance of work. Analysis of forces changing the contemporary occupation structure, typical career patterns of professions and occupations, the social organization of occupational groups.

## SOCI3365

3 Credits

### **Sociology of Religion**

The social functions of religion, institutions and ideologies; the impact of religious problems associated with secularization of religion; economic and political dimensions of religious change and new religious movements.

## SOCI4075

1–3 Credits Each Semester

### **Honors Seminar (Sociology)**

## SOCI4425

3 Credits

### **The Black Female Experience in America**

This course will explore the black female experience in America from a sociological perspective. In order for students to develop a comprehensive understanding of this experience, theories regarding race, gender, sexuality, love relationships and the various roles inhabited by African-American women will be evaluated. Students will discover the challenges and contributions of African-American women during significant periods of American history including slavery and the Civil Rights movement. The research, literature and artistic works of Patricia Hill-Collins, Tricia Rose, Sheri Parks, Elijah Anderson, Jacqueline Grant, Alice Walker, Angela Davis, Maya Angelou and others will be critically examined. Prerequisite: SOCI1201 Introduction to Sociology.

## SOCI4436

3 Credits

### **Environmental Sociology**

An analysis of social and cultural issues raised by environmental changes, including global, local and individual-level causes and effects.

## SOCI4477

1–3 Credits Each Semester

### **Honors Research and Thesis (Sociology)**

## SOCI4498

1–3 Credits

### **Internship in Sociology**

Structured and supervised work in a social work agency or office for 15 hours a week.

## SOCI4700

3–15 Credits

### **Washington Center Internship**

This course is a one-semester internship in Washington, D.C., through the Washington Center Internship Program. Students may register for 3 to 15 credits.

## SOCI4800

1–3 Credits Each Semester

### **Independent Study in Sociology**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

## SOCI4900

3–12 Credits

### **Faculty/Student Research**

Members of faculty engage in research projects with selected students with the goal of professional publication or presentation.

## SOCI4901

3 Credits

### **Faculty/Student Research**

Members of faculty engage in research projects with selected students with the goal of professional publication or presentation.

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*Department of Literature,  
Language, Writing and Philosophy*

## SPAN1001, SPAN1002

6 Credits (3 Credits Each Semester)

### **Beginning Spanish I, II**

An introduction to the language with practice in reading, writing and conversation. Corequisites: SPAN1007 Spanish Practicum I and SPAN1008 Spanish Practicum II.

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## SPAN1007

1 Credit

### Spanish Practicum I

This one-credit course is linked to SPAN1001 Beginning Spanish I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: SPAN1001 Beginning Spanish I.

## SPAN1008

1 Credit

### Spanish Practicum II

This one-credit course is linked to SPAN1002 Beginning Spanish II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: SPAN1002 Beginning Spanish II.

## SPAN2001

3 Credits

### Spanish for Medical Personnel

This course addresses the linguistic needs of medical professionals. After recapitulating the foundational material for SPAN1001 Beginning Spanish I and SPAN1002 Beginning Spanish II, including the basic grammar structures, this course trains medical professionals in key vocabulary terms and conversational practices that are relevant to health care and medical practice contexts.

## SPAN2003

3 Credits

### Spanish Conversation I

This course focuses on conversation through writing, reading, literature and grammar. Note: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

## SPAN2004

3 Credits

### Spanish Conversation II

This course reviews important grammar topics and discusses contemporary issues in the Spanish-speaking world. Note: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

## SPAN2006

3 Credits

### Music in Spanish: Writing and Conversation

Song lyrics provide the basis for gaining proficiency in spoken and written Spanish. Students expand vocabulary in a broad variety of content areas through discussions on music. Prerequisite: SPAN1002 Beginning Spanish II.

## SPAN2007

3 Credits

### Hispanic Current Events: Writing and Conversation

Taught in Spanish, current events are used to gain proficiency in Spanish with emphasis on

vocabulary, idiomatic expressions and grammar. Prerequisite: SPAN1002 Beginning Spanish II.

## SPAN2008

3 Credits

### Hispanic Film: Writing and Conversation

Films from Latin America and Spain inform class conversation and writing assignments. Through film, vocabulary is expanded, culture is addressed and grammar is reviewed. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

## SPAN2009

3 Credits

### Spanish for Professions

This course teaches students how to diversify their vocabulary as they build proficiency, in specific content areas directly linked to their undergraduate major. More advanced students may also benefit from this course as the focus is on technical language or specific content areas generally not studied in other courses. A hands-on, workshop environment will help students feel comfortable in dealing with common situations specific to their field of expertise. Prerequisite: SPAN1202 Beginning Spanish II or placement at the 2000-level or above.

## SPAN2015

1 Credit

### Spanish Study Abroad Expansion

Independent study will allow students to explore specific topics directly linked to Spanish culture that may also be enhanced by the study-abroad experience. Topics are defined in consultation with the instructor. This course is taught in English.

## SPAN2016

1 Credit

### Latin American Study Abroad Expansion

Students will explore specific topics directly linked to study abroad in Latin America. This course is taught in English.

## SPAN2020

3 Credits

### Spanish Composition

This course helps students improve their writing skills. Students will write on a variety of topics. A review of Spanish grammar and syntax, among other topics, will help students write clearly and effectively. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

## SPAN2101

3 Credits

### Hispanic Identities: Myths and Realities

Focusing on pivotal moments in literature and history, this course studies how representations

of fact have been used to create a Hispanic identity. The purpose of the course is to evaluate the discourses that have been shared as an integral part of Hispanic legacy. Through a study of the creation and evolution of such notions and in comparison to uses of other national discourses — mainly of the United States — the course hopes to arrive at an understanding of the discursive forces that shape national identities.

## SPAN2504

3 Credits

### Spanish Art and Its Influence in the Americas

Taught in English, this course studies Spanish art from the Middle Ages to the present and its influence on Latin-American art.

## SPAN2506

3 Credits

### Spanish Culture and Civilization

This course, taught in English, introduces key topics in Spanish history, politics, arts and literature as well as the sciences. It will also address contemporary issues in Spanish culture.

## SPAN2507

3 Credits

### Latin-American Culture and Civilization

This course, taught in English, introduces key topics in Latin-American history, politics, arts and literature as well as the sciences. It will also address contemporary issues in Latin-American culture.

## SPAN2508

1 Credit

### Latin-American Culture and Civilization: Study Abroad

Study-abroad activities linked to SPAN2507 Latin-American Culture and Civilization. Corequisite: SPAN2507 Latin-American Culture and Civilization or permission of instructor.

## SPAN2515

3 Credits

### Spanish Film

This course surveys Spanish film. Students analyze how cinema represents Spanish history and culture. They also examine how Spanish film has moved from local and national themes to include more global topics for an international audience. (Equivalent to CINE2515 Spanish Film.)

## SPAN2530

3 Credits

### Latin American Film

Designed to introduce students to culture through film media, the course focuses on the study of 10 films from most countries in Latin America. First analyzed from a general perspective, each film provides a different aspect of the culture of the Spanish-speaking world. (Equivalent to CINE2530 Latin American Film.)



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## SPAN3008

3 Credits

### **Nation, Gender and Ethnicity in Latin-American Cultures and Literatures**

This course reviews discourses informed by issues regarding national identity, race, gender and social class. The course will focus on how these concepts and categories inform Latin-American culture. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

## SPAN3009

3 Credits

### **Afro-Hispanic Literature**

This course focuses on the literature of the black experience in Hispanic America. Texts are selected from a variety of genres and periods. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

## SPAN3015

3 Credits

### **Hispanic Identities: Myths and Realities**

This bilingual course focuses on pivotal moments in literature and history. It studies how representations of myth and reality have been used to create a Hispanic identity. The discourses that have been shared as an integral part of the Hispanic legacy are reviewed.

## SPAN3016

3 Credits

### **Latin-American Classics and Their Film Versions**

A bilingual course designed to acquaint the student with contemporary Latin-American literature and adaptations of major works to film.

## SPAN3030

3 Credits

### **Hispanic Nobel Prize Writers**

This course focuses on the winners of the Nobel Prize in Literature from the Spanish-speaking world. Study and analysis of the characteristics of the masterpieces created by this elite group of writers and the selection process of the Nobel Prize committee. Examination of the texts from the perspective of Spanish-speaking writers to assess the local as well global significance of the works. Writers include Marques, Paz, Neruda, Asturias and Mistral, among others. The works are read in Spanish. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

## SPAN3310

3 Credits

### **Latin-American Women Writers**

A study of the works of contemporary Latin-American women writers including Isabel Allende, Elena Castedo, Laura Esquivel, Ann Miranda, Luisa Valenzuela and others. The course is taught in English.

## SPAN3410

3 Credits

### **Spanish Culture and Civilization**

Taught in Spanish, this course introduces key topics in Spanish history, politics, arts and literature as well as the sciences. It also addresses contemporary issues in Spanish culture.

## SPAN3411

3 Credits

### **Latin-American Culture and Civilization**

Taught in Spanish, this course introduces key topics in Latin-American history, politics, arts, literature as well as the sciences. It also addresses contemporary issues in Latin-American culture.

## SPAN3412

1 Credit

### **Latin-American Culture and Civilization: Study Abroad**

Study-abroad activities linked to SPAN3411 Latin-American Culture and Civilization. Corequisite: SPAN3411 Latin-American Culture and Civilization or permission of instructor.

## SPAN3417

1 Credit

### **Spanish Study Abroad Expansion**

Independent study will allow students to explore specific topics directly linked to Spanish culture that may also be enhanced by the study-abroad experience. Topics are defined in consultation with the instructor. This course is taught in Spanish.

## SPAN3418

1 Credit

### **Latin American Study Abroad**

Students will explore specific topics directly linked to study abroad in Latin America. This course is taught in Spanish. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

## SPAN3431

3 Credits

### **Latin-American Short Stories**

Reading and translation of Latin-American short stories.

## SPAN3441

3 Credits

### **Latin-American Theater**

This course will survey important currents in the development of Latin-American theater. Dramatic texts will be studied to understand how they reflect on social and political issues. Moreover, how Latin-American dramatic discourse emerges within the context of colonialism, in response to other theatrical traditions, and in its search for its own identity, will be key concepts explored in this course. Key moments from the early colonial period to the 20th century will in-

form the course discussion.

## SPAN3451

3 Credits

### **Spanish Translation/Interpretation**

Conversation focuses on current events of interest and significance from the Spanish point of view. Spanish newspapers and magazines form the textbook material. Composition focus is the same. Translation exercises are Spanish to English and English to Spanish. Grammar is reviewed as needed.

## SPAN3452

3 Credits

### **Writing in Spanish**

Students read and write in a wide variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisite: SPAN2003 Spanish Conversation I, SPAN2004 Spanish Conversation II or departmental permission.

## SPAN3462

3 Credits

### **Topics in Hispanic Poetry**

This course surveys the development of poetry in Spain and Latin America. It examines major movements in the Hispanic lyric.

## SPAN3463

3 Credits

### **The Hispanic Essay**

This course surveys the development of the essay in Spain and Latin America. It examines a variety of discourses with special attention to how this genre has served in forging national identities and how the essay continues to address contemporary concerns. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

## SPAN3480

3 Credits

### **Spanish Classics on Film**

Taught in Spanish, this course surveys Spanish works of literature and adaptations of these works to film.

## SPAN3502

3 Credits

### **Spanish Translation**

This course focuses on translating written material.

## SPAN3503

3 Credits

### **The Short Story in Spanish**

Readings of and essays on selected short stories from Latin America and Spain.

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## SPAN3510

3 Credits

### Introduction to Spanish Linguistics

This course focuses on the nature of Romance languages with a special emphasis on Spanish. Characteristics of phonological and grammatical systems of the lexicon are explored as well as the evolution of the language.

## SPAN3551

3 Credits

### Topics in Spanish Literature I

This course focuses on the literature of the Middle Ages through the Enlightenment in Spain. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

## SPAN3552

3 Credits

### Topics in Spanish Literature II

This course focuses on Romanticism, Realism, Modernism and other contemporary themes in Spanish literature.

## SPAN3561

3 Credits

### Topics in Latin-American Literature I

This course focuses on the literature of Latin America from pre-Hispanic texts through the Enlightenment.

## SPAN3562

3 Credits

### Topics in Latin-American Literature II

This course focuses on the literature of Latin America from Romanticism to the present.

## SPAN3600

3 Credits

### Cervantes

Selected works by Cervantes will be studied within their historical context. Careful attention will be placed on literary genre and innovations expanding the possibilities of specific genres. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

## SPAN3601

3 Credits

### Advanced Spanish Grammar

This course focuses on intensive grammar review, sentence structure, building vocabulary and perfecting composition skills.

## SPAN4003

3 Credits

### Advanced Spanish Review

This course reviews fundamental aspects of Spanish texts in the Spanish language. Special attention is given to literary genres, the reader's reception of these texts and the contexts of the texts. Prerequisite: SPAN2004 Spanish Conversation II or department permission.

## SPAN4005

3 Credits

### Latin-American Women Writers

Selected readings in Spanish of significant authors of Latin-American literature.

## SPAN4440

3 Credits

### The Hispanic Novel: From Cervantes to García Márquez

This course offers a sampling of novels from representative writers of Spain and Latin America. Important literary periods and movements will be studied in their respective contexts — from Spain's Golden Age period to the Literary Boom in Latin America of the 1960s.

## SPAN4477

3 Credits

### Honors Research and Thesis

Senior research and thesis applying students' knowledge of the Spanish language. Mentorship required.

## SPAN4498

3 Credits

### Internship

Practical experience working in a business, government or nonprofit setting or in publications, applying academic knowledge; academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

## SPAN4600

3 Credits

### Spanish Theater

This course surveys 20th-century Spanish theater including plays by Benavente, Valle-Inclan and Lorca among others. It also studies one work by a contemporary playwright.

## SPAN4800

1–6 Credits

### Senior Independent Study – Spanish

Independent study in Spanish at the senior level.

## SPAN4900

5–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## SPAN4999

3 Credits

### Senior Thesis Seminar

Review of research methods as students conduct independent study toward completion of a research paper.

# Theater and Speech

*School of the Arts*

## Dance

### DAN1320

3 Credits

#### Beginning Dance I

This beginner's course is designed to introduce students to modern dance, jazz and ballet techniques and the basic terminology of dance steps. Emphasis will be placed on developing proper body alignment necessary to dancing. Prior dance training is not required for this course.

### DAN2020

3 Credits

#### Basic Tap

An introductory course to tap dancing. Students will have the opportunity to develop and master basic tap and performance skills. Students will participate fully in center floor combinations, audition prep, body conditioning and alignment. Prerequisite: DAN1320 Beginning Dance I.

### DAN2021

3 Credits

#### Ballet I

This course is designed to provide an opportunity to experience the foundation of dance through the study of ballet. Students will develop alignment, strengthen their ballet vocabulary and increase their knowledge of ballet.

### DAN2022

3 Credits

#### Ballet II

This course is a continuation of the practice and understanding of ballet technique and vocabulary taught in DAN2021 Ballet I. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. Students will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2021 Ballet I.

### DAN2023

1 Credit

#### Ballet III

A continuation of the practice and understanding of ballet technique and vocabulary taught in DAN2022 Ballet II. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2022 Ballet II.

### DAN2024

1 Credit

#### Ballet IV

A continuation of the practice and understanding of ballet technique and vocabulary taught in

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DAN2023 Ballet III. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2023 Ballet III.

**DAN2505**  
**3 Credits**  
**Dance II**

A continuation of DAN1320 Beginning Dance I, this course will implement intermediate levels of ballet, modern and jazz techniques. Various dance forms will be studied including traditional, Broadway and contemporary hip-hop. Students will improve their technique, coordination, flexibility and muscular development. Prerequisite: DAN1320 Beginning Dance I.

**DAN2506**  
**3 Credits**

**Movement for the Actor**

The basic elements of movement will be explored to help actors strengthen individual expression. The course will focus on coordination, grace and improvement of dexterity. Students will work toward creating a physical vocabulary as a basis for developing a character.

**DAN2507**  
**3 Credits**

**Choreography**

Choreography is the art of making dances. In this course students will practice the skills of creating movement, editing work, notating and rehearsing steps to create choreographic phrases and work. Preclassical dance forms, modern dance forms and musical styles will be explored. Prerequisite: DAN2021 Ballet I or DAN2505 Dance II.

**DAN2600**  
**3 Credits**

**Theater Dance**

This class covers different dance styles used in the theater, including jazz, tap, modern and character dancing. The course also introduces students to the dance styles of noted choreographers such as Bob Fosse, Michael Bennett, Tommy Tune and Jerome Robbins. They would also be introduced to the choreographers' signature works, for example, "West Side Story," "Sweet Charity," "My One and Only," etc., and would be taught excerpts from the original choreography. The course will conclude with prepared audition pieces.

**DAN3020**  
**3 Credits**

**Advanced Tap**

A secondary course in tap dancing designed to give students the opportunity to further develop and learn tap-dancing skills. Students will participate fully in the following: warm-ups that take them through the vocabulary of tap; center floor combinations; audition prep; learning to pick up a combination quickly; body condition-

ing and alignment. Prerequisite: DAN2020 Basic Tap.

**DAN3021**  
**1 Credit**

**Advanced Tap II**

A review of the practice and understanding of tap technique and vocabulary taught in DAN3020 Advanced Tap. Students will increase facility and understanding of dance through constant repetition of exercises. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN3020 Advanced Tap.

**DAN3316**  
**1 Credit**

**Stage Combat I**

This course covers techniques of personal combat used in theatrical staging of actual fights, falls, slaps, punches and duels. Included in this course will be introductory practices in both armed and unarmed combat for stage.

**DAN3321**  
**1 Credit**

**Stage Combat II**

Students will learn advanced work in both armed and unarmed combat for the stage. Also covered in this course will be sword and dagger, sword and cape, knife and advanced hand to hand. Prerequisite: DAN3316 Stage Combat I.

**DAN3800**  
**1-3 Credits**

**Independent Study Dance**

Students work on an assigned project with a mentor.

**DAN4422**  
**1-3 Credits**

**Internship in Dance I**

Internship within dance that integrates classroom learning with supervised employment in an area relevant to the student's educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

**DAN4423**  
**1-3 Credits**

**Internship in Dance II**

Continued internship within dance that integrates classroom learning with supervised employment in an area relevant to the student's educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

**DAN4900**  
**3 Credits**

**Faculty/Student Research**

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**DAN4901**  
**3 Credits**

**Faculty/Student Research**

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: DAN4900 Faculty/Student Research.

**DANH1322**  
**3 Credits**

**Dance History and Appreciation**

This course is designed to cover the history of dance from its earliest forms to the present as well as increase appreciation and awareness of dance as an art form. This course will include viewing and researching dancers and choreographers who helped shape history. Through the viewing of film, video and live dance performances, students will experience the art, culture and universal expression of dance.

*Speech*

**SPCH1107**  
**3 Credits**

**Fundamentals of Speech**

A class seminar in public speaking as a communicative art. Stress is on personal understanding, projection of self and relationship to listeners. A practical course for all who anticipate speaking before small or large groups.

**SPCH1204**  
**3 Credits**

**Voice for the Actor**

The class will develop the vocal instrument of the actor. Students will be given special techniques for relaxing the body, deepening the breath and developing resonance, projection and articulation. This will provide students with the tools to possess a voice with the energy, range and clarity required for the stage.

**SPCH1205**  
**3 Credits**

**Voice for the Actor II**

This class, a continuation of SPCH1204 Voice for the Actor, will use physical and voice exercises to help the student speak clearly and expressively. Emphasis will be placed on articulation and breath support. Work with the international phonetic alphabet will continue and be used to analyze dialects for performance. Prerequisite: SPCH1204 Voice for the Actor.

**SPCH2004**  
**3 Credits**

**Speech and Diction**

This class will use physical and vocal exercises to help students speak clearly and expressively. Emphasis will be placed on breath support, resonance and articulation. The international phonetic alphabet will be used to help accent reduction. Prerequisite: SPCH1204 Voice for the Actor.

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## SPCH2006

3 Credits

### Speech and Diction II

This course is a continuation of SPCH2004 Speech and Diction and the study of phonetics. Students will focus on phonetics and continued accent reduction, good speech for the stage and the application of IPA (International Phonetic Alphabet) as text. Prerequisite: SPCH2004 Speech and Diction.

## SPCH3001

1 Credit

### Voice and Speech Combination

A one-credit course to allow students who have already taken preliminary courses in voice production and speech. This course will allow students to continue with their vocal training as well as continue with exercises geared towards performances in Dreyfuss Theater. Preproduction warm-ups will also be featured. Prerequisite: SPCH1204 Voice for the Actor and SPCH2004 Speech and Diction.

## SPCH4421

3 Credits

### Advanced Acting II: Dialects and Styles

This course will explore language and dialect through advanced scene work. Students will learn to apply dialect and language skills in an audition setting. The course will introduce and familiarize students with advanced techniques for "cold reads" and with style in scene work from a range of historical periods. Prerequisite: THEA4420 Advanced Acting. (Equivalent to THEA4421 Advanced Acting II.)

## SPCH4422

1-3 Credits

### Internship in Speech I

Internships in speech, including those for theater arts majors, which emphasize use of this facility.

## SPCH4423

1-3 Credits

### Internship in Speech II

Internships in speech, including those for theater arts majors, which emphasize use of this facility.

## SPCH4900

3-12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## SPCH4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: SPCH4900 Faculty/Student Research.

## Theater

### THEA1005

1 Credit

#### Makeup for the Stage

The basics of makeup application for the stage.

### THEA1010

3 Credits

#### Vectorworks for Entertainment

This class is designed to give students an introduction into the world of computer drafting. Students will learn how to use the Vectorworks drafting program. This class will also provide working knowledge and understanding of drafting from light plots to scenic ground plans. When complete, students will have an understanding of industry standards, helping them prepare for the professional world.

### THEA1015

3 Credits

#### Basic Vocal Technique

This course uses a workshop format to teach vocal anatomy, proper breathing, balanced tone as well as work on vocal registers and vocal health. Each student will be assigned pieces from musical theater and/or the classical repertoire. This course is targeted for freshman theater arts majors with a concentration in musical theater and/or other students wishing to improve their singing and gain confidence and skill set for solo singing. (Equivalent to MUSIC1015 Basic Vocal Technique.)

### THEA1110

3 Credits

#### Introduction to Acting

This course is designed to provide students with some basic acting techniques. Regardless of previous training and experience, if any, this class will give students a strong foundation on which to build in terms of concentration, focus, motivation and presentation. This course will include physical and vocal warm-ups, improvisation, conflict exercises, monologue and scene work. Emphasis will be placed on practical execution as well as academic theory.

### THEA1111

3 Credits

#### Introduction to Acting II

This course is a continuation of THEA1110 Introduction to Acting. Designed to introduce nonmajors to basic acting theory and to develop their oral communication skills, it will allow students to explore scene work in greater depth. The course will help students develop their improvisational skills and will encourage students to apply what they have learned in the previous semester to rehearsal and performance settings. Vocal and physical exercises will also be introduced. Prerequisite: THEA1110 Introduction to Acting.

### THEA1203

3 Credits

#### Basic Acting I

A course in the fundamentals of acting training, which will emphasize truthful human behavior and creativity on stage. Techniques to be covered will include the use of objectives, subtext, improvisation and rehearsal strategy.

### THEA2001

1 Credit

#### Advanced Makeup for the Stage

Study more advanced makeup techniques including advanced period makeup, aging, facial-hair application, special effects (cuts and bruises) and latex application. Prerequisite: THEA1005 Makeup for the Stage.

### THEA2005

3 Credits

#### Directing I

A study of the basic theories and techniques of directing, organization, basic staging and composition will be studied as well as script analysis, casting and working with actors. Prerequisite: THEA1203 Basic Acting I.

### THEA2015

3 Credits

#### Vocal Technique II

The course continues developing skills for proper and healthy singing. It will concentrate on the emergence of a personal, convincing and appropriate expressive style on the basis of free singing tone and well-supported vocal mechanism. Students will be assigned pieces from musical theater or the classical repertoire. Prerequisite: THEA1015 Basic Vocal Technique. (Equivalent to MUSIC2015 Vocal Technique II.)

### THEA2101

3 Credits

#### Elements of Playwriting

In this introduction to the craft of playwriting, students will complete a series of writing exercises that address characterization, dialogue, conflict and dramatic structure. These exercises will ultimately culminate in the creation of a one-act play by the end of the course.

### THEA2203

3 Credits

#### TV Writing and Screenwriting I

Seminar conducted as workshop. Work submitted biweekly toward the completion of a 30-minute teleplay or film.

### THEA2204

3 Credits

#### Intermediate Acting

A continuation and development of the techniques of THEA1203 Basic Acting I, with a particular emphasis on scene study, monologs and auditioning skills. Prerequisite: THEA1203 Basic Acting I.

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## THEA2209

3 Credits

### Stagecraft I

This course has been structured to stress basic design concepts that are then translated into the construction of sets for all plays presented by the department.

## THEA2215

3 Credits

### Set Design I

The principles and techniques of designing scenery for the theater. Students will learn rendering, drafting and model making and create an original design from script to complete model. Participation in campus productions required.

## THEA2216

3 Credits

### Set Design II

Advanced work in scenic design. Students will create original designs and may produce them in workshop productions. Participation in campus productions required. Prerequisite: THEA2215 Set Design I.

## THEA2220

3 Credits

### Introduction to Acting II

This course will follow the same format as THEA2204 Intermediate Acting but will be restricted to non-majors only. (A continuation and development of THEA1203 Basic Acting I, with a particular emphasis on scene study, monologs and auditioning skills.) Prerequisite: THEA1203 Basic Acting I.

## THEA2300

2 Credits

### Performance and Production

A two-credit course open to theater majors only that will work on presentation of scenes, short plays or cabaret acts. Prerequisite: THEA1203 Basic Acting I.

## THEA2310

3 Credits

### Stage Management

A course to train students in the duties and responsibilities of running rehearsals and performances. From the preparation of the prompt book, to maintaining the artistic intentions of the director, to calling cues and keeping records and rehearsal reports, students will be able to oversee all aspects of backstage production.

## THEA2311

3 Credits

### Children's Theater

This course is designed to bring theater to younger audiences (5th–8th graders) by writing, designing and acting in a production created by students and toured to two to three middle schools in the vicinity. The rehearsal

process will occur during the final week of summer break and then tour during the early part of the following fall semester. Students will learn how to create a production from the initial script to final performance in all aspects. (Equivalent to MUSIC2311 Children's Musical Theater.)

## THEA2312

3 Credits

### Children's Theater II

An opportunity to build, rehearse and perform with the Youth Theater Project performance of "Possibilities." Prerequisite: THEA2311 Children's Theater.

## THEA2339

3 Credits

### Musical Theater Workshop

A course designed to offer instructional training in singing for the musical theater. Emphasis will be placed on vocal training, rhythm and presentation, and each student will be helped to choose material suitable for his or her vocal range. Prerequisite: THEA1203 Basic Acting I. (Equivalent to MUSIC2339 Musical Theater Workshop.)

## THEA2340

3 Credits

### Advanced Musical Theater Workshop

A performance workshop for advanced theater majors and singers. It focuses on improving singing and acting skills in the performances of songs and audition techniques. Prerequisite: MUSIC2339 Musical Theater Workshop or THEA2339 Musical Theater Workshop. (Equivalent to MUSIC2340 Advanced Musical Theater Workshop.)

## THEA2506

3 Credits

### Movement for the Actor

The basic elements of movement will be explored to help actors develop individual expression. The course will focus on coordination, grace and improvement of dexterity. Students will work toward creating a physical vocabulary as a basis for developing character.

## THEA3001

3 Credits

### Advanced Playwriting and Drama I

Seminar conducted as a workshop. For those seriously interested in developing as writers for theater. Work submitted biweekly toward completion of a full-length play.

## THEA3006

1 Credit

### Directing II

This is an advanced course that will require the preparation of scenes that will ultimately lead to performances. Techniques will receive major emphasis.

*Spring, Odd Years*

## THEA3101

3 Credits

### Greek and Roman Drama

The course analyzes some of the seminal works in Greek and Roman tragedy and comedy, looking at the historical, political and philosophical circumstances that inform the plays. A history of stagings through the centuries and attention to contemporary productions will be part of the course as well. Authors considered include Aeschilus, Sophocles, Euripides, Plato, Aristotle, Menander, Aristophanes, Plautus, Terrence and Seneca. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

## THEA3102

3 Credits

### Studies in Drama

Analysis of significant plays, focusing on particular themes, playwrights, historical periods or forms of drama. Topics change with each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## THEA3105

3 Credits

### Contemporary European Drama

Study of major European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. (Equivalent to LITS3105 Contemporary European Drama.)

## THEA3106

3 Credits

### Contemporary World Drama

Study of major non-European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## THEA3107

3 Credits

### Hispanic Drama

Study and analysis of major works of Spanish theater from the Renaissance to the present. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

## THEA3110

3 Credits

### Stagecraft II

This course has been designed to incorporate advanced design and construction concepts and techniques. This work will be done in conjunction with problems presented by all department productions. Prerequisite: THEA2209 Stagecraft I.

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## THEA3112

3 Credits

### Lighting for the Stage

Lighting design in theory and practice. From basic electricity to the art of using lighting to support the theatrical designs of the play. Subjects covered will include instrumentation, circuitry, light plots, color, angles and control. Participation in campus productions required.

## THEA3213

3 Credits

### Shakespeare I

A survey of Shakespeare's major poems, comedies, histories and tragedies. Attention is paid to Shakespeare's language, life and times and his role as innovator in English drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent or LITS2001 The European Tradition I or LITS2002 World Literature II: 13th–18th Centuries.

## THEA3255

3 Credits

### Advanced Playwriting

In this class students will move past the basics of dramatic structure and workshop to longer pieces: full-length plays and screenplays. They will also be reading plays and viewing films with a focus on craft and dramaturgy, narrative structure, subtext and character development. The semester will close with an invited reading of excerpts from the longer works. Prerequisite: THEAH2255 Playwriting and Dramatic Structure or permission of instructor.

## THEA3309

3 Credits

### Advanced Directing

For those seriously interested in developing in depth as directors, preparation of scenes will ultimately lead to performance of staged one-act plays. Prerequisite: THEA2005 Directing I.

## THEA3313

3 Credits

### Scene Painting I

The basic techniques of painting 2-dimensional and 3-dimensional scenery for the stage. Dry brushing, rag rolling, spattering, spraying and scumbling are taught along with a variety of other faux techniques.

## THEA3314

3 Credits

### Scene Painting II

More advanced problems in scene painting for the theater, including painting large drops, perspective, "gridding up" and projections. Prerequisite: THEA3313 Scene Painting I.

## THEA3325

3 Credits

### Stagecraft III

Advanced problems in technical theater production. Students head key elements of mainstage theater productions including lighting and

sound, wardrobe, props, scene painting and master carpentry. Prerequisite: THEA2209 Stagecraft I or THEA3110 Stagecraft II.

## THEA3336

3 Credits

### Acting for Film and Television

This course is designed to instruct the student in the basic techniques of characterization and movement within the confines of the camera lens. Students will recreate scenes from established films, which will be taped using professional techniques, e.g., master shot, two shot and close-up. Prerequisite: THEA2204 Intermediate Acting.

## THEA3340

3 Credits

### London Theatre Experience II

This course will provide students who have already taken THEAH3339 The London Theatre the opportunity to revisit London and visit six to seven different professional theater productions and attend lectures and workshops with different actors and theater professionals. Prerequisite: THEAH3339 The London Theatre.

*Fee*

## THEA3351

1 Credit

### Production and Crew I

Designed as a hands-on theater experience for students who participate in mainstage production, this course will cover all experiential aspects of production: audition, preproduction, rehearsal and performance.

## THEA3352

1 Credit

### Production and Crew II

Designed as a hands-on theater experience for students who participate in mainstage production, this course will cover all aspects of production: audition, live production, rehearsal and performance. Second production. Prerequisite: THEA3351 Production and Crew I.

## THEA3353

1 Credit

### Production and Crew III

Designed as a hands-on theater experience for students who participate in mainstage productions, this course will cover all aspects of production: audition, preproduction, rehearsal and performance. Third production. Prerequisite: THEA3352 Production and Crew II.

## THEA3358

3 Credits

### Acting Shakespeare

An examination of Shakespeare's verse structure, analysis of the texts and an exploration of character and common themes in Shakespeare's plays. The class will include presentation of selected monologs and scenes and will incorporate the viewing of tape and film and visits to profes-

sional productions. Prerequisite: THEA1203 Basic Acting I.

## THEA4403

3 Credits

### Producing for the Theater

A practical course in theater production. Students are involved in general management practices for actual theater productions including marketing and publicizing the shows and managing the box office and the front of the house.

## THEA4405

3 Credits

### Senior Seminar: The Working Actor

A course especially designed for final-semester senior theater majors to prepare them for the professional world. The class will focus on audition techniques and will culminate in a Manhattan showcase in front of professional agents and casting directors. Prerequisite: available to senior theater arts majors only.

## THEA4410

3 Credits

### Stagecraft IV

Students are totally responsible (under faculty supervision) for all technical elements of a studio theater production, including set and lighting design, sound, props and costumes. Prerequisites: THEA2215 Set Design I and/or THEA3110 Stagecraft II, THEA3112 Lighting for the Stage and THEA3325 Stagecraft III.

## THEA4415

3 Credits

### Building the Scenic Model

The basic techniques and materials for creating scale models for the theater, film and animation. Students learn to work in scale and use a variety of materials and painting techniques to create 3-dimensional models of theatrical sets and environments. Prerequisite: THEA2216 Set Design II.

## THEA4416

3 Credits

### Rendering and Drafting for the Theater

Problems in creating 2-dimensional color renderings in perspective. Watercolor, acrylic and marker techniques are taught along with advanced elements of drafting 2-D and 3-D scenery. Focus is on ground plans, elevations and construction drawings. Prerequisite: THEA2216 Set Design II.

## THEA4420

3 Credits

### Advanced Acting

This is an intensive course for seniors who plan to pursue acting as a career beyond college. Course work will include character work, opposite point of view, impediments and advanced scene study. Actors will learn to transform their behavior using a range of techniques,

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while building on the fundamentals of truth-based acting and play structure.

## THEA4421

3 Credits

### Advanced Acting II

Advanced scene study and character work; additional course work for students who have progressed beyond THEA4420 Advanced Acting. The course will prepare them for work at the master of fine arts level and will include the study of and work with contemporary dramatic authors. Prerequisite: THEA4420 Advanced Acting. (Equivalent to SPCH4421 Advanced Acting II: Dialects and Styles.)

## THEA4422, THEA4423

1–3 Credits

### Internship in Theater

Students will intern with a professional theater or theater production office. Prerequisite: permission of instructor.

## THEA4800

1–3 Credits Each Semester

### Independent Study in Theater

Independent study with a specific faculty member after consultation with the department chairperson.

## THEA4900

3–12 Credits

### Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

## THEA4901

3 Credits

### Faculty/Student Research

Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: THEA4900 Faculty/Student Research.

## THEAH1201

3 Credits

### Development of the Theater: Ancient to Elizabethan

Understanding theater as live performance through lecture, discussion and experimentation with old and new ideas on staging and production. The student will explore the use of the stage and function of music, movement, the actor's art and the director's art, based on scripts from the Greeks through the time of Shakespeare. *Spring*

## THEAH1202

3 Credits

### Development of the Theater: Restoration to Today

Since the time of Shakespeare, "modern theater" has blossomed and flourished all over the

globe. Through lectures, readings, class discussions, viewings of live stage performances and films, students will explore trends that led to modern drama, including The Golden Age of Spain, German Romanticism, the Poetic Realism of Chekov, Asian Theater, the American Musical and Avant-garde Theater. Theater projects and theater trips. Offered every semester.

## THEAH2255

3 Credits

### Playwriting and Dramatic Structure

Through writing and revising a play, students discover and explore the dramatic form. Emphasis is placed on the nature and development of conflict and strategies for resolution.

## THEAH3103

3 Credits

### Modern Drama 1880–1930

The course focuses on the innovative theater of Ibsen, Strindberg and Chekhov at the turn of the 20th century. Other playwrights (such as Pirandello and Brecht) may be considered as well.

## THEAH3537

3 Credits

### Night at the Theater

Field trips to the varied and rich theatrical fare in the metropolitan area, including Broadway, Off-Broadway and regional theater. Discussions explore various aspects of the plays and production. Students are responsible for transportation to and from theater location. Tickets are underwritten by grants from the Peter Jay Sharp Foundation.

*Fee*

## THEAH3539

3 Credits

### The London Theatre

A 10-day trip to London during spring break to see plays and attend theater-related classes at the Globe Theatre. This will be preceded by class study of plays involved and followed by class discussion upon the students' return to the Florham Campus.

*Fee*

## THEAH3544

3 Credits

### History of the Musical

A survey of the history of contemporary musical theater from its origins in the 19th century through present day. In addition to lectures and discussions, the course makes extensive use of audio and video materials. (Equivalent to MUSIH3544 History of the Musical.)

## THEAH3557

3 Credits

### Audio Design Concepts

This course will provide an overview of the techniques and the tools of sound design and the sound designer's role in the theater. How

sounds move through the air, microphones, as well as speaker choice and placement will be presented. Students interested in live sound for theater presentations or concerts should consider this course. Prerequisite: THEA3551 Production and Crew I.

# Writing and Creative Writing

Department of Literature,  
Language, Writing and Philosophy

## CREW1001

3 Credits

### Introduction to Creative Writing

In this course, students will read and discuss contemporary literature in at least three of the four major creative writing genres: fiction, poetry, creative nonfiction and drama. And, in a workshop setting, students will also write in those genres, allowing them the opportunity to discover and explore areas for future study. Note: This is a prerequisite for all CREW 2000-level courses.

## CREW1002

3 Credits

### Introduction to Fiction Writing

Study and practice of writing fiction. The workshop places the focus on student writing. Additional reading provides the context for discussion of craft and form. This course is not for creative writing major credit.

## CREW2002

3 Credits

### Creative Writing: Fiction

Study and practice of writing fiction. The workshop places the focus on student writing. Additional reading provides the context for discussion of craft and form. Prerequisite: CREW1001 Introduction to Creative Writing.

## CREW2005

3 Credits

### Creative Writing: Poetry

Study and practice of writing poetry. The workshop places focus on student writing. Additional reading provides the context for discussion of craft and form. Prerequisite: CREW1001 Introduction to Creative Writing.

## CREW2016

3 Credits

### CNF: What's Your Real Story

This is a writing workshop on literary or creative nonfiction — which means it uses stories from real life, and craft them into literary pieces similar to a short story, using students' own experiences as raw material. Memoirs and collections of personal essays are examples of this genre, and students will read examples of these as well as write their own pieces for the work-

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shop. This is a required course for all creative writing majors and minors. Non-creative writing majors and minors are also welcome.

## CREW2250

3 Credits

### Screenwriting I

Students learn the basics of screenplay structure, character development, rising and falling action and conflict and resolution by writing scripts and reading and analyzing successful screenplays. Students complete short scripts that may be used in other classes as shooting assignments. Prerequisite: CREW1001 Introduction to Creative Writing. (Equivalent to FILM2250 Screenwriting I.)

## CREW2255

3 Credits

### Playwriting and Dramatic Structure

Through writing and revising a play, students discover and explore the dramatic form. Emphasis is placed on the nature and development of conflict and strategies for resolution.

## CREW2500

3 Credits

### Fiction Workshop: Vampires, Zombie and Me — Young Adult and Children's Literature

In this workshop, students will focus on writing for children and young adults (YA). What is important to consider when writing for a younger audience? How far can one push things in YA? Is there really a difference between young adult and adult literature anymore? This is a fiction-writing workshop to develop one's own book or start one. The class will also be reading young-adult and middle-grade books: fantasy, dystopia, realism and mysteries. Writing for young people is as complex and challenging as writing for adults. Students should be prepared for an intensive writing workshop, reading and class discussion.

## CREW2500

3 Credits

### Ways of Seeing: Poetry Writing and Visual Arts

Using contemporary and classic art and writing inspired by art, this course is a multifaceted exploration of the ways students see and how they can express that in their own poetry writing. Among other things, students will learn how teaching police (and others) to look at art has led to solving crimes in the real world; how learning such techniques of looking at and understanding art may enrich one's life, academic experience and career; how contemporary and earlier art have been used to educate, create social change, religious change and so on. Students will write poems and critical responses to art and to assigned reading. This course has no prerequisites. Note: For creative writing majors, this course can substitute for CREW3012 Advanced Poetry Writing, with workload adjusted accordingly.

## CREW3010

3 Credits

### Special Topics: Invented Worlds — Speculative and Fantastic Fiction

In this workshop students will examine various forms of speculative and fantastic fiction and generate a collection of interconnected stories set in a singular world of their own making.

## CREW3011

3 Credits

### Advanced Fiction Writing

An advanced workshop in the craft and form of writing fiction. Prerequisite: CREW2002 Creative Writing: Fiction.

## CREW3012

3 Credits

### Advanced Poetry Writing

An advanced workshop in the craft and form of poetry writing.

## CREW3013

3 Credits

### Advanced Dramatic Writing

Using techniques learned in CREW2255 Playwriting and Dramatic Structure or THEAH2255 Playwriting and Dramatic Structure, students will complete a one-act play or one-person show over the course of the semester. Open readings of selected scenes will close the semester. Prerequisite: CREW1001 Introduction to Creative Writing (for creative writing majors) or THEAH2255 Playwriting and Dramatic Structure (for theater arts majors).

## CREW3017

3 Credits

### Advanced Creative Nonfiction: It's All About Me

In this workshop students will focus on telling their own stories. What is the difference between memoir and autobiography? What are the tools a writer can employ when writing a memoir, and how does a writer develop the "I" as a character? Who is telling this story and what is the role of time and vantage point? Students will be reading memoirs from a wide variety of authors and using structured writing prompts to enter into the story they feel they have to tell. The class should be prepared for an intensive writing workshop, reading and class discussion.

## CREW3020

3 Credits

### Reading as Writers

An examination of craft and form in literary masterworks, both classic and contemporary, from the practitioner's perspective. Texts will be analyzed to answer the questions, "How does it work?"; "What narrative techniques or approaches to characterization does the writer employ?"; "What are the works' stylistic elements?"; and "How can these elements be employed in new fiction?" Students will be expected to engage in discussions, write three analytical papers

and, using one of the texts studied as a model, generate a short work of fiction. Prerequisite: Any CREW2000-level course.

## CREW3025

3 Credits

### Special Topics: Telling the Truth

Creative nonfiction walks the line between truth and fiction; in this class, students will write literary nonfiction essays that craft a narrative from that most unreliable source: their own subjective memory. They will embrace the unreliability of their narrations and close read texts that shed light on how to build a character from what Joan Didion calls: "The Implacable I." Prerequisite: CREW1001 Introduction to Creative Writing.

## CREW3030

3 Credits

### Fiction Workshop: Fever Dreams — Pathological Perspectives

Pathological Perspectives is a special-topics creative writing workshop. Students will examine the ways in which atypical states of consciousness — madness, neurological disorders, dissociation and other unreliable and unusual perceptions of the world are crafted in classic and contemporary fiction and creative nonfiction, and apply the narrative processes discovered in these texts to their own writing.

## CREW3046

3 Credits

### Getting Published

In this class, students will study the best practices for submitting creative work to literary magazines, agents and editors. They will work with visiting publishing professionals to better understand the current literary landscape and to learn the best strategies for getting published. Students will also have the opportunity to practice editing skills that are necessary in the publishing profession.

## CREW3047

3 Credits

### Literary Publishing

This hands-on introduction to the world of independent publishing will explore all aspects of the editing, production and publication of a literary journal, as well as give students a broad overview of the literary marketplace. Students will gain practical experience with design, editing, acquisitions, art, proofing, digital publishing, distribution and marketing. The class will combine approaches, moving between small group labs and seminar styles of learning. This course is offered in conjunction with *The Literary Review*, FDU's international journal of contemporary literature. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design or CREW1001 Introduction to Creative Writing. (Equivalent to CGD3047 Literary Publishing.)



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## CREW3080

3 Credits

### Music and Poetry

This course examines the relationship between poetry and music throughout history, while providing students the opportunity to practice writing both poetry and song lyrics as well as critical papers on various related topics. From the Homeric epics to the chorus of Greek tragedy, devotional songs in various traditions, to the ballads of Robert Burns, to the work of Bob Dylan, Bruce Springsteen, Joni Mitchell and Tupac, and to an exploration of the extraordinary success of "Hamilton," the class will study how language and music work together, how the oral tradition survives in these times, how and when poetry broke away from song and how and when they've come back together. The course's primary method will be the close reading of lyrics and poems, using the tools of poetry analysis to judge them; therefore, a good deal of the students' time will be spent mastering those techniques and listening to and reading great poetry and music. Note: Open to all students. No prerequisites.

## CREW4001

3 Credits

### Senior Writing Project I

In this capstone two-semester course for all creative writing majors, students will develop and write a significant literary work in their chosen genre: fiction, poetry, creative nonfiction or dramatic writing. Working closely with the class and individually with their mentors, students will research (when relevant) and complete a draft of their entire thesis.

## CREW4002

3 Credits

### Senior Writing Project II

This course will further develop the work of CREW4001 Senior Writing Project I as students rewrite, revise and edit their thesis into a final potentially publishable form.

## CREW4004

3 Credits

### The Novella

In this course, students will study the novella as a literary form and write an original, extended work of prose. Prerequisites: CREW1001 Introduction to Creative Writing and CREW2002 Creative Writing: Fiction.

## CREW4498

3 Credits

### Internship

Practical experience working in a business, government or a nonprofit setting or in the publication field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

## CREW4499

3 Credits

### Internship

Practical experience working in a business, government or a nonprofit setting or in the publication field, applying academic knowledge; academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor. Prerequisite: CREW4498 Internship.

## ENGW0198

3 Credits

### Fundamentals of Writing

A developmental writing course focusing on literacy skills necessary for academic success. Emphasis is on strategies for developing academic essays, reading-comprehension skills, basic writing process and understanding the conventions of Standard English.

## ENGW1000

3 Credits

### Introduction to Composition

This introductory course concentrates on the fundamental skills necessary for academic success. Students practice writing well-organized, sensible and grammatically sound expository prose. Particular emphasis is placed on cultivating effective processes for more thoughtful and developed writing, revising to achieve unity and coherence and self-directed editing and proofreading for clarity and appropriateness. Students also participate in peer review and become more critical readers. (Equivalent to ENWR1000 Introduction to Composition.)

## ENGW1001

3 Credits

### Composition I: Rhetoric and Inquiry

This course provides students with intensive study and practice in process-oriented writing, critical reading and rhetorical inquiry. Students engage expository texts in order to describe and evaluate the choices writers make and then apply that knowledge to their own compositions. Throughout the course, students give and receive feedback, revise their work and reflect on their growth as writers. (Equivalent to ENWR1001 Composition I: Rhetoric and Inquiry.)

## ENGW1001 Honors

3 Credits

### Composition I: Rhetoric and Inquiry, Honors

This course is an accelerated version of Composition I. It provides students with intensive study and practice in process-oriented writing, critical reading and rhetorical inquiry. Students engage expository texts in order to describe and evaluate the choices writers make and then apply that knowledge to their own compositions. Throughout the course, students give and receive feedback, revise their work and reflect on their growth as writers. Students enrolled in the honors section develop research projects.

## ENGW1002

3 Credits

### Composition II: Research and Argument

This course focuses on the study and practice of writing as research-based argument. As a means of arriving at the writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. (Equivalent to ENWR1002 Composition II: Research and Argument.)

## ENGW1002 Honors

3 Credits

### Composition II: Research and Argument, Honors

This course is an accelerated version of Composition II. The focus is on the study and practice of writing as research-based argument. As a means of arriving at the writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. In addition to completing advanced research projects, students in the honors section create conference proposals and prepare presentations on research completed that are delivered on Honors Research Day.

## ENGW3001

3 Credits

### Advanced Writing Workshop

Advanced principles of writing expository prose: focus on style, tone, organization, purpose and audience. Required for communication and writing concentrations. Prerequisites: ENGW1002 Composition II: Research and Argument and junior standing.  
*Fall, Spring*

## ENGW3022

3 Credits

### Digital Rhetoric and Writing

This course will focus on the ways in which texts produced for online spaces (video games, blogs, podcasts, websites, etc.) draw on a combination of image, text, sound, color and video in order to communicate ideas. Topics will include access, ownership and identity as they relate to work produced in/for digital spaces. Students will be expected to both analyze and create digital texts. No advanced technical knowledge or special equipment is required for this course.

**For journalism courses, see  
Communication Studies**

See pages 306–310.

# Accounting • Business (General)

Silberman College of Business

Florham Campus, Metropolitan Campus and Vancouver Campus

## Silberman College of Business

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate department chair.

### Accounting

*Department of Accounting,  
Taxation and Law*

#### ACCT2021

3 Credits

##### **Introductory Financial Accounting**

An introduction to the concepts underlying an accounting information system. Transactions are analyzed, recorded and summarized into a balance sheet, income statement and cash-flow statement. Additional topics include fixed-asset acquisitions and disposals, patents, franchises, goodwill, bond amortization, bond premiums and discounts, common and preferred-stock issuance, dividends and treasury-stock issuance and retirement.

*Fall, Spring*

#### ACCT2022

3 Credits

##### **Introductory Managerial Accounting**

An introduction to the concepts of managerial accounting, including fixed/variable-product cost analysis, cost-volume-profit analysis, make vs. buy and other variable-cost analysis, transfer pricing, budgeting and variance analysis. Prerequisite: ACCT2021 Introductory Financial Accounting.

*Fall, Spring*

#### ACCT3241

3 Credits

##### **Intermediate Financial Accounting I**

This course reviews the accounting cycle and has a detailed study of the financial accounting conceptual framework; underlying accounting principles including revenue recognition, income statement and balance-sheet presentation and accounting for assets, including cash, receivables, inventories and fixed assets. Basic differences in relevant U.S. and international accounting standards are identified. Prerequisite: ACCT2022 Introductory Managerial Accounting.

*Fall*

#### ACCT3242

3 Credits

##### **Intermediate Financial Accounting II**

This course continues the detailed study of financial accounting began in ACCT3241 Intermediate Financial Accounting I. Recent pronouncements of the Financial Accounting Standards Board and their applications, such as in the areas of accounting for liabilities, stockholders' equity, dilutive securities, earnings per share and statement of cash flows. Basic differences in relevant U.S. and international accounting standards are identified. Prerequisite: ACCT3241 Intermediate Financial Accounting I.

*Spring*

#### ACCT3243

3 Credits

##### **Cost Accounting: Measurement and Control**

This course covers advanced managerial accounting topics such as job order and process costing, cost-volume-profit analysis and variance analysis. Prerequisite: ACCT2022 Introductory Managerial Accounting.

*Fall*

#### ACCT3390

3 Credits

##### **Accounting Information Systems**

The problems and procedures concerning the design and installation of accounting systems. Development of account classifications and internal controls with emphasis on the accountant's use of the computer as an aid to management. Prerequisite: ACCT3241 Intermediate Financial Accounting I.

#### ACCT4261

3 Credits

##### **Advanced Accounting**

This course studies accounting for mergers and acquisitions, consolidations, partnerships, government and bankruptcy. Other timely topics may be covered. Prerequisite: ACCT3242 Intermediate Financial Accounting II.

*Fall*

#### ACCT4265

3 Credits

##### **Auditing Concepts**

A first course in auditing. This course explores the concepts of evidence and their application to balance sheet and income statement accounts. Additional topics include auditor's reports, evaluation of internal control and other engage-

ments. Prerequisite: ACCT3242 Intermediate Financial Accounting II.

*Fall*

#### ACCT4267

3 Credits

##### **Fundamentals of Federal Taxation**

An introduction to federal taxation. This course studies tax principles as they affect the individual. Topics include identification of the taxpayer; income and deductions; deferral and non-recognition transactions; and converting taxable income into tax liability. Expert computer systems will be used in the course. Prerequisite: ACCT2022 Introductory Managerial Accounting.

#### ACCT4498, ACCT4499

3 Credits Each Semester

##### **Internship in Accounting Studies**

This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an accounting environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

#### ACCT4800

1-3 Credits

##### **Independent Study in Accounting**

Independent study under the direction of a specific faculty member after consultation with the department chairperson.

## Business (General)

*Department of Management and Entrepreneurship*

#### BUSI1000

3 Credits

##### **Foundations of Business**

No matter what a student's major may be, it is important to understand the basics of business and the global economy. In this introductory course, students will learn about a wide variety of business management subjects, such as marketing, economics, finance, entrepreneurship, accounting, human resources and business technology. In particular, the class will focus on

# Career Studies • Decision Sciences • Economics

Silberman College of Business  
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how business is conducted in a dynamic, global marketplace, and how different cultures, legal systems and economics impact business (and vice versa). Students will develop their critical thinking, communications, research and problem-solving skills through class discussion, assignments and project work.

## Career Studies

*Department of Management and Entrepreneurship*

**CARR5000**

**2 Credits**

### **Career Strategies**

Career success is more than a matter of luck. Academic preparation, hard work and resilience all matter as does learning career strategies to enhance a student's performance. This course will help students be more successful in their first jobs after graduation and beyond by providing insights into building a strong relationship with their bosses, finding mentors and sponsors and networking effectively. It will help them better understand career paths, assess career risk and consider the importance and challenges of work-life balance. They will also practice making formal and informal presentations to develop the oral communication skills that are highly valued by employers. Prerequisite/Corequisite: MGMT2600 Organizational Behavior.

## Decision Sciences

*Department of Marketing, Information Systems and Decision Sciences*

**DSCI1234**

**3 Credits**

### **Mathematics for Business Decisions**

This course provides mathematical concepts and skills for business decisions, including linear and nonlinear functions, rational functions, exponential and logarithmic functions. Elements of calculus such as limits and derivatives are introduced. Business applications include supply, demand and equilibrium, breakeven analysis and financial mathematics. Prerequisite: placement test.

**DSCI1239**

**3 Credits**

### **Calculus with Business Applications**

This course, an alternative to DSCI1234 Mathematics for Business Decisions, emphasizes mathematical applications to business problems. Topics covered include functions and models, limits and continuity, average and instantaneous rates of change in business and economics, dif-

ferential techniques, maxima and minima values and their applications to business and economics; inventory costs, marginal analysis and introduction to integration. Prerequisite: placement test or precalculus.

*Fall*

**DSCI2029**

**3 Credits**

### **Introduction to Statistics**

An introduction to basic statistical methods to collect, summarize and analyze numerical data. Topics include descriptive statistics, basics of probability, binomial and normal distributions and sampling and sampling distributions. Excel spreadsheets are frequently employed to both graphically illustrate a topic and provide computational capabilities. Prerequisites: DSCI1128 Introduction to Mathematical Methods, DSCI1234 Mathematics for Business Decisions or DSCI1239 Calculus with Business Applications.

*Fall, Spring*

**DSCI2130**

**3 Credits**

### **Business Statistics**

Second semester of a two-semester sequence in business statistics. Topics include confidence interval, hypothesis testing, simple and multiple regression and analysis of variance. Business data is analyzed using Excel spreadsheets. Emphasis is on understanding, interpreting statistical information and explaining statistical ideas to non-specialists. Prerequisite: DSCI2029 Introduction to Statistics.

*Fall, Spring*

**DSCI3152**

**3 Credits**

### **Operations Management**

This course provides necessary concepts and skills on how firms design, produce and deliver goods and services to their customers in a cost-effective way. Management science techniques are utilized in all aspects of operations management including forecasting, capacity, inventory, supply chain, quality and project management. Case studies and computer software are utilized. Prerequisite: DSCI2130 Business Statistics.

*Fall, Spring*

**DSCI3502**

**3 Credits**

### **Value Chain Management for Sustainability**

This course aims to provide the students with a holistic understanding of opportunities and challenges in achieving sustainability in today's supply chains. The course will survey chain operations and strategies in the face of tightening environmental legislation and increasing expectations of society in terms of environmental performance, health and other social impact. The course adopts a line-cycle view of products

across and outside supply-chain business performance. The class format will include lectures and case discussions. Prerequisite/Corequisite: MGMT3400 Managing Sustainability in the Global Context.

**DSCI4800**

**1-3 Credits Each Semester**

### **Independent Study in Decision Sciences**

Independent study under the direction of a specific faculty member after consultation with the department chair.

## Economics

*Department of Economics, Finance and International Business*

ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics are prerequisites to all other economic courses.

**ECON2001**

**3 Credits**

### **Introduction to Microeconomics**

Problems of consumer behavior and demand, the allocation of resources of production, factor pricing and market conduct under pure competition, imperfect competition, oligopoly and monopoly.

*Fall, Spring*

**ECON2102**

**3 Credits**

### **Introduction to Macroeconomics**

A comprehensive introduction to macroeconomics. The concept of national income analysis, the theory of determination of income and employment, problems of fiscal and monetary policy and aspects of international economic activity.

*Fall, Spring*

**ECON2207**

**3 Credits**

### **Introduction to Econometrics**

Quantitative analytical methods, combining economic theory, mathematics and statistics. Prerequisites: DSCI2130 Business Statistics, ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

**ECON4208**

**3 Credits**

### **International Trade**

Theoretical and practical aspects of world trade; studies of comparative cost advantages, tariff policies, balance of payments, foreign exchange market, foreign investments, foreign trade promotion and trade agreements. Prerequisite: ECON2102 Introduction to Macroeconomics.

*Fall, Spring*

# Entrepreneurship

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## ECON4421

1–3 Credits Each Semester

### Selected Studies in Economics

Studies in an area of economics. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

## ECON4499

3 Credits Each Semester

### Internship in Economics Studies

This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an economics environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

## ECON4800

1–3 Credits Each Semester

### Independent Study in Economics

Independent study under the direction of a faculty member after consultation with the department chairperson.

# Entrepreneurship

## Department of Management and Entrepreneurship

## ENTR2700

3 Credits

### Introduction to Entrepreneurship and Innovation

This course introduces the key concepts in entrepreneurship and innovation, and students will explore entrepreneurial mindsets and thinking. A key facet is on entrepreneurship as a process that can be learned. Students will be introduced to frameworks that help to systematize the design of companies and business models. The economics of entrepreneurship will be covered through considering economic models that are effective, as well as legal issues and concepts of risk management in startup companies.

## ENTR3160

3 Credits

### Launching New Ventures

This course focuses on the venture-planning process and uses lean-launch fundamentals to create a business model. Students will learn how to use lean-launch methodology to plan a new venture and make intelligent “go/no go” decisions based on customer feedback and validation of hypotheses during the design process. Students will learn about the design and purposes of a business plan, will create a business model as a group project and present their projects at the end of the semester. Prerequisites: ACCT2021 Introductory Financial Accounting,

FIN3250 Principles of Financial Analysis, MGMT2600 Organizational Behavior and MKTG2120 Principles of Marketing.

## ENTR3202

3 Credits

### Family Business Management\*

This course examines family businesses, which may be seen as two different organizations with very different social dynamics and synergies combined into one. This creates strengths and weaknesses, opportunities and difficulties and rewards and conflicts that are unique to family businesses. It is important that students understand family businesses because they may one day work for one, as a family member or non-family employee.

## ENTR3300

3 Credits

### E-business for Entrepreneurs\*

This course examines the development of the internet and the World Wide Web and how digital technology is affecting the world of the entrepreneur of a small business. In particular, the course is concerned with exploring what opportunities and challenges the internet offers to start-ups as well as to existing small- and medium-size companies. The primary aim of the course is to understand how e-commerce affects the strategic options available to entrepreneurs and how to evaluate whether an idea for an e-business can be transformed into a viable opportunity. Discussions and assignments will focus on the competitive challenges and opportunities raised by the internet in the areas of channel structures, pricing, distribution and product marketing. Unfolding and future trends relating to the use of digital technologies will be considered. This course is organized in terms of four axes: technology, management, consumer and social and legal implications.

## ENTR3601

3 Credits

### Women as Entrepreneurs\*\*

This course focuses on the emergence of women leaders globally and on women in work environments generally. The primary objective is to consider what this means for all young adults as they build careers today in workplaces that are increasingly gendered and diverse, and often include navigating “labyrinths” to reach the higher levels. Students will investigate the organizational issues that are emerging during this age of what has been called “Second-generation Bias” and what this means for all work environments. Discussions and assignments will involve current issues and challenges that women leaders face, interviews and case studies of women business owners and will rely heavily on various online tools that are available today. Fully online class. Need NetID (formerly Webmail) account.

\*Blended course, distance learning and classroom

\*\*Distance-learning course

## ENTR3700

3 Credits

### Doing Well Through Doing Good

Social entrepreneurship is an exciting field of business in which leaders from across society conceive, build and grow mission-driven ventures. Motivated by a desire to make a difference in a community, social entrepreneurs have developed creative solutions to intractable social problems. Students in this course will gain knowledge by studying how social entrepreneurs have used the tools of business and entrepreneurship to create innovative solutions. Through analyzing case studies, participating in lectures, student engagement with guest lecturers and experiential exercises, students will learn the fundamentals of social entrepreneurship. The course focus will be on emerging social business models, leadership of social ventures, measurement of impact and performance and sustainability.

## ENTR4100

3 Credits

### Managing Growing Ventures

This course examines the problems and issues confronting entrepreneurs beyond the nascent stage of a new venture. Entrepreneurship is about creating and building something of value from practically nothing. But beyond this nascent phase of a startup, the issues related to managing a growing organization while considering a multitude of new stakeholders, requires a completely different set of skills. Attracting and retaining a management team, satisfying the demanding requirements of investors and building credibility with customers and suppliers are just a few of the concerns that growth-oriented entrepreneurs must face. This course covers principles and practices of implementing and growing the new businesses, with a focus on the time and resource needs as well as understanding the key tasks/actions and skills required. Key growth topics include: funding, financial management, organizational development and human resource management. Prerequisite: ENTR3160 Launching New Ventures.

## ENTR4498, ENTR4499

3 Credits

### Internship in Entrepreneurial Studies

This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an entrepreneurial environment. The student is consulted and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisites: ENTR3160 Launching New Ventures and departmental approval.

**ENTR4800****3 Credits****Independent Study in Entrepreneurship**

Students may elect to do an independent study under the direction of a faculty member after consultation with the department chairperson.

**Finance****Department of Economics, Finance and International Business****FIN3250****3 Credits****Principles of Financial Analysis\***

This is an introductory business core course in the fundamental principles and techniques of finance. Topics include financial management and shareholder-wealth creation, understanding and analysis of financial statements, time value of money, fixed-income and common-equity valuation, capital budgeting, working capital management and multinational finance management. Prerequisites: ACCT2021 Introductory Financial Accounting and ECON2001 Introduction to Microeconomics.

**FIN3310****3 Credits****Intermediate Financial Analysis\*\***

This is an intermediate financial analysis course in risk-and-return relationships, valuation models, cost of capital, capital structure, capital budgeting, corporate value and value-based financial management and financial planning and forecasting financial statements. Prerequisites: ACCT2022 Introductory Managerial Accounting, DSCI2029 Introduction to Statistics, ECON2102 Introduction to Macroeconomics and FIN3250 Principles of Financial Analysis.

**FIN3350****3 Credits****Personal Financial Management**

The course is designed to identify and examine financial decisions faced by individual consumers and their families at various points throughout their lifetimes. In addition to providing financial-planning techniques useful to students in their own lives, the course provides a foundation upon which interested students can build to prepare for a range of career opportunities in the financial services industry. While there are no formal course prerequisites, students should be familiar with Excel spreadsheets.

\*Required of all business students and all non-business students taking a business minor. Finance and accounting majors should take this in the second semester of their sophomore year.

\*\*Required of all finance and accounting majors and open to any student meeting the required prerequisites. Finance and accounting majors should take this in the first semester of their junior year.

**FIN3371****3 Credits****International Business Finance**

The balance of payments, foreign exchange, direct investments, international capital markets, managing working capital, taxation, financing international trade, exchange, exposure and international financial controls. Prerequisite: FIN3310 Intermediate Financial Analysis. Fall, Spring

**FIN3421****3 Credits****Sports Finance**

Financial analysis of sports teams, leagues and institutions. Topics include sources of revenue, antitrust issues, economic impact of local professional teams, public funding of sport venues, labor relations, compensation, innovative revenue sources, etc. Prerequisite: FIN3250 Principles of Financial Analysis or FIN3310 Intermediate Financial Analysis.

**FIN3503****3 Credits****Finance, Value and Sustainability**

This course explores financial methods of valuation in the broader context of the role of the firm in society. Exploration of ideas of shareholder-value maximization as opposed to stakeholder-value maximization given societal and environmental issues will form the core of the course. To have a solid basis for understanding these issues, students will be introduced to the idea of interest rates and discounting, to classic models of discounted cash flow (DCF) valuation as well as to real-options valuation (ROV). Issues surrounding the valuation of distant future and appropriate methods to deal with this valuation will be discussed in the context of Corporate Social Responsibility (CSR) reporting to account for externalities, market imperfections and property rights. The financial performance of Socially Responsible Investing (SRI) will be discussed. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

**FIN4150****3 Credits****Working Capital Management**

This course studies the short-term financial planning and management of a firm via its operating and cash cycles. Cash budget, short-term financing, credit and inventory management, cash and liquidity management and short-term risk management form the major topics. Ethical and international issues will be woven into various topics as they appear instead of being dealt with separately.

**FIN4211****1-3 Credits****Special Topics in Finance**

Studies in the area of finance.

**FIN4221****3 Credits****Capital Budgeting**

The course examines the commitment of resources for future economic activity. A number of topics will be explored: the economic environment, risk and the cost of capital, capital structure, cash flows, decision-making criteria for determining the rational deployment of capital, quantifying uncertainty with real options and other appropriate and timely topics. The course would use cases, spreadsheet applications and projects to provide a good understanding of relevant topics. Prerequisite: FIN3310 Intermediate Financial Analysis.

**FIN4341****3 Credits****Financial Markets and Institutions**

Study of the structure, operations and regulations of financial intermediaries; flow of funds analysis; theories of interest rate determination; instruments and operations of short- and long-term capital markets. Prerequisite: FIN3250 Principles of Financial Analysis. Corequisite: FIN3310 Intermediate Financial Analysis.

**FIN4343****3 Credits****Securities and Investments**

Basic principles underlying investment decisions. The structure and operations of the stock exchanges and the over-the-counter markets, as well as the functions of securities dealers and brokers. Examination of the various types of stocks and bonds, government obligations, investment companies, financial statement analysis, forecasting techniques and portfolio management problems. Prerequisite: FIN3310 Intermediate Financial Analysis.

**FIN4350****3 Credits****Derivatives**

This course first surveys the derivatives markets, and then proceeds to conduct pricing exercises for the four major instruments in options, forwards, futures and swaps. The use of derivatives in hedging will be the central theme. Special issues that may be investigated include credit default swaps; weather, energy and insurance derivatives; and lessons learned from derivatives debacles in recent history. Prerequisite: FIN4343 Securities and Investments.

**FIN4351****3 Credits****Portfolio Management**

The course studies the process of constructing, managing and revising portfolios of financial assets for wealth maximization. The use of equities, fixed-income assets, treasury securities, options and other derivative securities in portfolio management are discussed along with the theories appropriate for security pricing. Prereq-

# Financial Planning and Wealth Management

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quisites: FIN3310 Intermediate Financial Analysis and FIN4343 Securities and Investments.

**FIN4405**

**3 Credits**

## **Analytical Methods in Finance**

Review and extension of the principles and techniques of corporate finance; advanced topics in financial management, including case studies and spreadsheet modeling. Prerequisites: DSCI2150 Business Statistics, FIN3310 Intermediate Financial Analysis and FIN4343 Securities and Investments.

**FIN4451, FIN4452**

**1–3 Credits Each Semester**

## **Internship in Finance**

Students work on a part-time basis in a position approved by the department. Prerequisites: 3.00 grade point ratio (GPR); junior or senior standing. *Fall, Spring*

**FIN4498, FIN4499**

**3 Credits Each Semester**

## **Internship in Finance Studies**

This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in a finance environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

**FIN4800**

**1–3 Credits Each Semester**

## **Independent Study in Finance**

Independent study under the direction of a specific faculty member and in consultation with the department chairperson.

**IBUS3201**

**3 Credits**

## **Fundamentals of International Business**

Provides an awareness of the environmental and managerial aspects of international business. Explores the complexities and implications of exposure to international competition and technology.

# Financial Planning and Wealth Management

## *Department of Economics, Finance and International Business*

**WMA3335**

**3 Credits**

## **Personal Financial Management**

The course is designed to identify and examine financial decisions faced by individual consumers and their families at various points in their lives. In addition to providing useful financial planning techniques, the course provides a foundation upon which interested students can prepare for a range of career opportunities in the financial services industry. While there are no formal course prerequisites, students should be familiar with Excel spreadsheets.

**WMA4265**

**3 Credits**

## **Personal Tax Planning**

The course introduces the basics of personal federal income taxes and strategies for minimizing taxes. The course studies tax principles as they affect the individual's wealth management. Topics include issues relating to a taxpayer's filing status, dependents, income, deductions, tax credits and deferrals. The topics are discussed from the perspective of tax planning. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

**WMA4267**

**3 Credits**

## **Retirement Planning**

This course is an introduction to basic principles relating to retirement planning as they pertain to financial planners. The course explores personal and employee-sponsored retirement plans, planning strategies to meet client goals and retirement-income management. Topics include Social Security and Medicare benefits, IRAs, Roth IRAs, tax-sheltered annuities, qualified and non-qualified retirement plans for employees, distribution options, tax deduction and taxation of benefits upon distribution. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

**WMA4350**

**3 Credits**

## **Investment Planning**

This is an introductory course in the investment-planning process for the individual or family investor. Operations of securities markets as well as an introduction to the valuation and risk of the instruments traded will be studied from the perspective of forming portfolios that

would achieve the financial goals of the client. Assessment of the risk and performance of the investment plan as well as risk-modification procedures and assets rebalancing to track the financial goals of the client will be introduced.

**WMA4370**

**3 Credits**

## **Personal Estate and Gift Planning**

This course is an introduction to basic principles relating to estate and gift planning as they pertain to financial planners. Students will become familiar with how the federal estate and gift tax system work. Topics covered include property transfer, tax consequences, methods of property transfer at death, estate-planning documents, probate avoidance, powers of appointment, joint ownership of property, life insurance, charitable dispositions, inter vivos gifts, use of living and testamentary trusts, the marital deduction and various tools and techniques to consider when implementing an effective estate plan consistent with the client's goals. Documents such as wills, trusts, powers of attorney and powers of appointment are addressed. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

**WMA4375**

**3 Credits**

## **Risk Management and Insurance**

In this course the student develops an understanding of risk and how to use insurance to manage the consequences of risk. The student will learn about health insurance and health care cost management, disability income insurance, long-term care insurance, annuities, life insurance, business uses of insurance, insurance-needs analysis, property and casualty insurance, as well as how to select an insurance policy and insurance company. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

**WMA4380**

**3 Credits**

## **Client Relations in Financial Management**

In this course students will gain a greater understanding of themselves and how to enhance their effectiveness in client relationships by focusing on the development of emotional-intelligence skills. Aspects include enhanced self-awareness, ability to regulate oneself and empathy in relationships. Integrity and authenticity in relationships, as well as ethical behavior and fiduciary trust, will be emphasized. The course will also focus on the development and maintenance of the client relationship. This includes the steps in developing the counseling relationship, supportive communication, effective interviewing, action planning, decision-making skills and techniques as they apply to financial counseling. Prerequisites: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management and at least one

# Information Systems • Law

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of the following: WMA4265 Personal Tax Planning, WMA4267 Retirement Planning, WMA4350 Investment Planning or WMA4375 Risk Management and Insurance.

## WMA4390

3 Credits

### Financial Planning Capstone

This is a required course for the concentration in financial planning and wealth management, and for those preparing to take the CFP® examination. The capstone course will enhance the students' skills in providing wealth-management and financial-planning services to clients. It integrates work in prior courses including investment planning, tax planning, risk management and insurance planning, estate and gift planning and retirement planning to provide an integrated and comprehensive financial plan for clients. The student is required to develop, present and support a financial plan based on the objectives and risk profile of a client and based on the CFP® Board's Financial Planning Practice Standards. Prerequisites: WMA3335 Personal Financial Management, WMA4265 Personal Tax Planning, WMA4267 Retirement Planning, WMA4350 Investment Planning, WMA4370 Personal Estate and Gift Planning and WMA4375 Risk Management and Insurance. Corequisite: WMA4380 Client Relations in Financial Management.

## WMA4498, WMA4499

3 Credits

### Wealth Management Internship

Integration of classroom study with specific planned periods of supervised learning and relevant employment experiences. Education combines learning on the job, University course work and career-development skills. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

## Information Systems

*Department of Marketing,  
Information Systems and Decision  
Sciences*

## MIS1045

3 Credits

### Information Technology for Business

This course provides students with the knowledge and skills to solve analytical business problems using computer-based spreadsheet and other software tools. The goals of this course include developing software and analytical competency, exploring applications in various areas of business and providing students with an overview of information technology/information systems concepts and terminology.  
*Fall, Spring*

## MIS2001

3 Credits

### Management Information Systems

This course provides an overview of information systems with a focus on the current information technologies and the role of information systems in achieving the operational and strategic goals of business organizations. The students also learn to utilize information-technology tools to support business operations and enhance business decision making. Prerequisite: MIS1045 Information Technology for Business.  
*Fall, Spring*

## MIS4301

3 Credits

### Data, Communications and Networks

Course is designed to give the student an understanding of current technology in data communications networks and telecommunications with respect to hardware and software. The process of selecting a communication system with both hardware and software, its implementation, support and effect on a business organization will be discussed. Prerequisite: MIS1045 Information Technology for Business.  
*Fall (Metro), Spring (Flor)*

## MIS4303

3 Credits

### Spreadsheet Applications in Business

Course is designed to give the student a proficiency in the use of spreadsheet software. It introduces advanced spreadsheet commands, formula generation, database operations, importing and exporting data, program modules and menu generation. The course includes case studies of spreadsheet solutions to management programs. Cases include scheduling, surveying, database management, graphic presentation, budgeting and capital management. Prerequisite: MIS1045 Information Technology for Business.  
*Fall (Flor), Spring (Metro)*

## MIS4304

3 Credits

### Database Applications in Business

Course introduces database concepts, including creation, searching, sorting, reporting and maintenance. Database design techniques using structured programming to designate data types, create database structures and document applications. A small business application will be designed and implemented. Prerequisite: MIS1045 Information Technology for Business.  
*Fall (Metro), Spring (Flor)*

## MIS4305

3 Credits

### Systems Analysis, Design and Implementation

Course introduces concepts and methods in the development of business systems. It starts with methods for determining the objectives and

feasibility of the target system. Topics include alternative system development and methodologies, cost-benefit analysis, information requirements analysis, structured methodologies, data models and interface design. Prerequisite: MIS1045 Information Technology for Business.  
*Fall (Flor), Spring (Metro)*

## MIS4307

3 Credits

### Introduction to E-business

This course provides a comprehensive introduction to the dynamic field of e-business. Topics include relevant technologies, models, systems, applications of B2B and B2C and other forms of e-business. E-business applications and implementation and their impact on different industries and sectors are covered, along with key topics related to e-business design and development. Course includes case studies and hands-on experience with e-business technologies. Prerequisite: MIS2001 Management Information Systems.

## MIS4499

3 Credits Each Semester

### Internship in Information Systems

This course will provide the student with an opportunity to gain practical on-the-job experience by applying the academic theory learned in the classroom to a work environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Progress in personal and career development is reviewed at frequent intervals during the program. Prerequisite: approval from department chair.

## MIS4800

1–3 Credits Each Semester

### Independent Study in Information Systems

Independent study under the direction of a specific faculty member after consultation with the department chair. Prerequisite: approval from department chair.

## Law

*Department of Accounting,  
Taxation and Law*

## LAW2276

3 Credits

### Business and the Law

The background and evolution of the American legal system. Special problems of the law and litigation that apply to business. Ethical constraints on business. Basic contract and tort law.  
*Fall, Spring*

# Management

Silberman College of Business

Florham Campus, Metropolitan Campus and Vancouver Campus

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## Management

### *Department of Management and Entrepreneurship*

#### **MGMT2600** 3 Credits

##### **Organizational Behavior**

Being able to motivate employees, lead teams, handle conflict and effectively communicate are essential skills for all careers, especially for survivors in the business world. This course emphasizes applying theories and developing interpersonal and managerial skills such as understanding individual differences, effectively working in teams, motivating and influencing others, leadership techniques and managing organizational change. Students will learn how highly effective supervisors and companies manage employees through in-class lectures, readings and group exercises as well as through assessing personal strengths and practicing employee-oriented management techniques. This course truly applies “real-world” scenarios and teaches students how best to apply the various organizational methods to create healthy and productive companies.

#### **MGMT3100** 3 Credits

##### **Managerial Ethics**

Making ethical decisions is an everyday occurrence in organizations. In this course students will explore their own values and moral leadership character. In addition, the class will explore best practices, policies and typical procedures for dealing with common ethical issues in organizations, and how to audit and evaluate an organization. Finally, students will learn how to critically evaluate moral dilemmas that are typically faced by managers.

#### **MGMT3371** 3 Credits

##### **International Management**

In order to successfully lead projects involving individuals and institutions from different countries, managers must understand the economic, legal, political, technological, cultural and sustainability issues affecting the process of globalization. This course focuses on the role of an international manager, including planning, organizing, leading and coordinating the multinational firm. Emphasis is placed on cross-cultural communication, as well as the impact of international business on society and the environment. Students will gain insight into international management and will apply this knowledge in at least one specific foreign country.

#### **MGMT3400** 3 Credits

##### **Managing Sustainability in the Global Context**

This course is an introduction to the broad, interdisciplinary field of sustainability management. It focuses on understanding and solving complex world challenges as future civic and business leaders from the whole-systems perspective — recognizing the interaction between environmental, social and economic factors and the interdependence of business and society. It examines the importance of responsible behavior and the potential advantages that sustainability practices can provide to various stakeholders and the types of organizations that serve them. It creates a foundation for understanding how various functional disciplines contribute to effective sustainability behavior, leadership and management and discusses potential sustainability career paths.

#### **MGMT3504**

3 Credits

##### **Becoming an Effective Sustainability Change Agent**

This course focuses on developing the mindset, skills and techniques to help an organization transition to embedding sustainability into its vision/mission, strategy, culture and day-to-day functioning. The course will emphasize building a commitment to the vision of a sustainable future and to sustainability practices at the individual, team, department and organization levels as well as the tools and techniques for effective change management. Further, the course will stress the importance of organizational learning focusing on continuous improvement and innovation in the context of sustainability. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

#### **MGMT3610**

3 Credits

##### **Leading Teams**

Leading in a team-based environment requires a combination of skills. In this course, students will increase their self-awareness and personal effectiveness and learn self-leadership. Strengthening their interpersonal skills, they will come to understand their impact on groups, practice shared leadership and learn how to distribute leadership within their teams. Students will provide real-time consulting or service to a non-profit organization to learn the process of developing and leading an effective team. Teams will work both face-to-face and virtually to learn how to function effectively in a technological, global environment. Prerequisite: MGMT2600 Organizational Behavior.

#### **MGMT3620** 3 Credits

##### **Leadership and Personal Development**

Have you ever managed other people? If so, you know it can be very challenging. If you progress in your career, it's highly likely you will soon be expected to be a good manager and leader, regardless of your functional specialty. So this course is for you. It focuses on developing the skill set and self-awareness that is essential to effective leadership. Self-assessments and guided exercises will provide students with greater insight into their leadership styles. In fact, this course will prepare students to exercise authentic, responsible leadership in all facets of their lives. Prerequisite: MGMT2600 Organizational Behavior.

#### **MGMT3700**

3 Credits

##### **Human Resources Management**

Are you interested in learning how companies hire, develop and pay their employees? Knowing how these processes work is essential for anyone who supervises others, and can help prepare students for a career in human resources (HR). It gives them a leg up in understanding what employers look for in job candidates and how they make their decisions. In this course, students will learn important aspects of analyzing jobs, as well as recruiting, selecting and training employees in order to find the right candidate for the right job. They also will learn the importance of providing feedback and how compensation, employee retention and organizational success are interrelated. This class uses lecture, discussion, hands-on learning and exposure to HR professionals so that students will learn the basics of various HR functions and understand how HR plays a vital role in business. Prerequisite: MGMT2600 Organizational Behavior.

#### **MGMT3710**

3 Credits

##### **Strategic Staffing**

Learn the strategies that top companies use to source, recruit, select and retain their best employees. Develop skills in job analysis, interviewing and negotiating that will help students prepare for a career in management or human resources. In addition to lecture and discussion, this course makes extensive use of hands-on learning to help students understand the fundamentals of strategic staffing and gain insights that will make them more effective when they apply and interview for a new job. Prerequisite/Corequisite: MGMT3700 Human Resources Management.



# Marketing

Silberman College of Business  
Florham Campus, Metropolitan Campus and Vancouver Campus

## MGMT3720

3 Credits

### **Training, Development and Performance Management**

Students will develop essential knowledge and skills needed for careers in human resource management, specifically in the areas of training and development and performance management. In this project-based class, students will design and implement effective training and development opportunities, gain experience with performance-evaluation techniques (e.g., goal setting, feedback, etc.) and learn how compensation is used to strategically reinforce performance management. Prerequisite/Corequisite: MGMT3700 Human Resources Management.

## MGMT4160

3 Credits

### **Strategic Management**

This is a capstone course for all Silberman College of Business students. The course integrates functional knowledge and approaches to business problem solving from the entire business curriculum. Students will apply their knowledge in case studies and other class exercises that reflect the integration of managerial principles into coherent organizational strategies, in a variety of business environments, looking across departments for solutions. Note: Prior to taking this course, a student must have completed 82 credits and is currently registered in a minimum of 15 credits. Prerequisite: ENTR3160 Launching New Ventures (for all majors other than accounting and finance) or FIN3310 Intermediate Financial Analysis (for finance and accounting majors only).

## MGMT4490

3 Credits

### **Guided Internship in Sustainability Management**

This individual hands-on guided internship provides an opportunity for students to integrate and apply approaches, tools and techniques for sustainable management from different business disciplines in the context of implementing sustainability projects.

## MGMT4498

3 Credits

### **Internship in Management\***

The student will work as an intern in an organizational setting. This internship provides students with the opportunity to apply and integrate theory as well as a faculty mentor to lead the academic component of the internship experience.

\*This course may be used to replace MGMT3620 Leadership and Personal Development or MGMT3400 Managing Sustainability in the Global Context.

## MGMT4499

3 Credits

### **Internship in Human Resources Management\***

The student will work as an intern in human resources. The internship opportunity includes the mentorship of a faculty member to lead the academic component of the internship experience.

## MGMT4640

3 Credits

### **Managing Projects and Organizations**

This course integrates what students have learned about personal effectiveness, team-management skills and strategic analysis to learn more advanced leadership theories and apply to a challenging project. Organizing the whole class into a single "enterprise," students will take on a more ambitious service project than previously to serve a nonprofit organization or charity. They will encounter the challenge of deciding how to design a complex organization and work out the needed coordination and communication across subgroup lines and up and down a hierarchy. By the end of the course, students will have completed a hands-on experience of leadership and change management, with all the inevitable challenge of discerning a way forward with an unstructured problem and overcoming obstacles to achieve an ambitious goal to benefit a worthy cause. Prerequisite: MGMT3610 Leading Teams.

## MGMT4730

3 Credits

### **Strategic Human Resource Management**

Human resource management (HRM) can be an essential driver of business success. In this class, which builds on prior management and HRM course work, students will study human resource strategy. The class will explore how employee-oriented management, HR policies and organizational development are central to implementing organizational strategy and to effectiveness in functional areas throughout business organizations. The class will also discuss the management of workforce changes (i.e., mergers, acquisitions and reductions), HR performance metrics, global HR and corporate social responsibility. Prerequisite: MGMT3700 Human Resources Management.

## MGMT4800

1–3 Credits Each Semester

### **Independent Study in Management**

Independent study under the direction of a faculty member after consultation with the department chairperson.

\*This course may be used as a substitute for MGMT3710 Strategic Staffing or MGMT3720 Training, Development and Performance Management.

# Marketing

## **Department of Marketing, Information Systems and Decision Sciences**

MKTG2120 Principles of Marketing is a prerequisite to all other marketing courses.

## MKTG2120

3 Credits

### **Principles of Marketing**

This introductory course is designed to enable students to understand the basic concepts and tools of modern marketing practice and appreciate the importance of marketing decisions dealing with product, price, distribution and promotion. The course will emphasize the interplay among these marketing decisions and environmental forces (competitive, economic, technological, sociocultural and legal-regulatory). The course will also provide the students with an understanding of consumer behavior, market research, market segmentation and positioning. Prerequisite: must have completed 31 credits.

Fall, Spring

## MKTG3344

3 Credits

### **Marketing Research\***

Course is designed to expose students to the theory and practice of marketing research. Beginning with an overview of the marketing research process, this course provides students with the skills to identify and solve marketing problems. The concepts will be reinforced by requiring students to define a marketing problem, identify the data requirements, gather and analyze data and make marketing recommendations based on the findings. Prerequisites: DSCI2029 Introduction to Statistics and MKTG2120 Principles of Marketing. Corequisite: DSCI2130 Business Statistics.

## MKTG3360

3 Credits

### **Digital Marketing**

The course deals with the internet as a marketing medium and explores how marketers may use it to engage and interact with their customers. Students will develop websites, understand Search Engine Marketing and Search Engine Optimization and use several databases to analyze trends and identify opportunities. The course will also address fundamentals of email marketing, web analytics and will apply marketing principles to the use of new technology. Prerequisite: MKTG2120 Principles of Marketing.

\*Distance-learning course

# Organization Studies • Sustainability

Silberman College of Business

Florham Campus, Metropolitan Campus and Vancouver Campus

## MKTG3371

3 Credits

### Principles of International Marketing

Students are introduced to marketing considerations in international markets. Some of the topics include cultural differences, social patterns, economic and legal environment and channels of distribution. Product attributes, pricing policies and promotional strategies are examined with respect to international considerations. Prerequisite: MKTG2120 Principles of Marketing.

## MKTG3383

3 Credits

### Social Media Marketing\*

This course will examine the strategic uses of social-media tools along with examples of successful social-media marketing campaigns on dominant platforms. Students will learn through the active use of select tools and platforms, culminating in the construction of a framework for creating, monitoring and measuring the effectiveness of social-media campaigns. Prerequisite: MKTG2120 Principles of Marketing.

## MKTG3501

3 Credits

### Marketing for a Sustainable World

This course provides students with fundamental concepts and principles of sustainability marketing from a global perspective. It will examine ways that marketing processes can be transformed to bring value to people, society and businesses. The course will also address consumer behavior that relates to socially and environmentally responsible actions. Topics include segmentation, positioning, marketing mix and measurement in holistic, sustainable marketing programs. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

## MKTG4272

3 Credits

### Consumer Behavior

Course will provide students with a conceptual understanding of the fundamentals of buyer behavior and its role in the development of marketing strategy. This course will examine the psychological, sociological and economic foundations of the field of consumer behavior and the relationship of these theories to managerial decisions. The course will be taught from the perspective of the marketing manager who needs knowledge of buyer behavior to develop, evaluate and implement effective marketing strategies. Prerequisite: MKTG2120 Principles of Marketing.

## MKTG4344

3 Credits

### Public Relations

This course serves as an introduction to the management and practice of public relations. It provides an overview of the field, teaches skills basic to public relations and applies the theories and skills to various publics. Prerequisite: MKTG2120 Principles of Marketing.

## MKTG4365

3 Credits

### Marketing Communications

This course is designed to provide an overview of marketing communications, including the management, strategy and creative development of advertising, publicity, sales promotion and other forms of marketing communication. Topics include research, segmentation, branding, positioning creativity and media selection.

## MKTG4405

3 Credits

### Advanced Marketing Management

Course draws on the cumulative marketing knowledge and analytical techniques acquired in previous courses and applies them systematically to a variety of “real-world” marketing situations. Students will be required to develop a comprehensive marketing plan, including situation analysis, marketing objectives, product positioning, strategies and tactics for the marketing mix and budget. Prerequisites: MKTG2120 Principles of Marketing and MKTG3344 Marketing Research. Corequisite: MKTG4272 Consumer Behavior.

## MKTG4498, MKTG4499

3 Credits Each Semester

### Internship in Marketing Studies

This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in a marketing environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

## MKTG4800

3 Credits

### Independent Study in Marketing

Students may elect to do an independent study under the direction of a faculty member after consultation with the department chairperson.

# Organization Studies

*Department of Management and Entrepreneurship*

## ORGS1100

3 Credits

### Ethical Issues in Social Institutions

This course is an introductory applied ethics course to achieve three objectives for students. The first objective is to raise the students’ awareness of the ethical implications of managerial activities in all types of organizations, including business, government and not for profit. The second objective is to teach moral reasoning skills for their application to the analysis of organizational activities. And, third is to acquaint the student with organizational ethics programs and organizational stewardship and responsibility. Students will study how individual psychological differences affect ethical judgments and actions, and will utilize and develop skills in stakeholder analysis and the assessment of organizational culture.

# Sustainability

*Department of Economics, Finance and International Business*

## SUST3500

3 Credits

### Environmental Economics

This course will introduce students to major ideas and concepts in the field of environmental economics — the supply and demand of environmental quality. The focus of the course is on important applications of microeconomic theory to the environment with an emphasis on the analysis of environmental and government policies. It stresses the importance of science and values in making efficient choices. Topics would include overuse of public goods and common resources, market failure, property rights and efficient resources use, managing renewable resources and consuming nonrenewable resources, the Coase theorem, nonmarket valuation techniques and problems relevant to contemporary environmental policy. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

\*Distance-learning course

# Accounting • Anthropology • Biology • Business

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

## Anthony J. Petrocelli College of Continuing Studies

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey;  
Vancouver Campus, British Columbia, Canada; and Wroxton College, Oxfordshire, England

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the office of the dean.

### Accounting

ACCT1131

3 Credits

#### Accounting I

The theory of debit and credit, journalizing, posting to general and subsidiary ledgers, the preparation of working papers, balance sheets, income statements and statements of owner's equity; adjusting, closing and reversing entries; accounting in business and manufacturing concerns.

Fall

ACCT1132

3 Credits

#### Accounting II

Accounting data in formulating managerial decision analysis and interpreting financial statements; the nature, source and flow of funds; the preparation of fund statements; the safeguarding of assets; special problems in cash, payroll and sales taxes, investments, fixed assets and liabilities. Prerequisite: ACCT1131 Accounting I.

Spring

ACCT1133

3 Credits

#### Business Law I

An analysis of fundamental branches of law under which business enterprises are organized and activities conducted; state and federal laws and administrative agency regulations that authorize, limit or control the conduct of business.

Spring

### Anthropology

ANTH2511

3 Credits

#### Urban Life: The Anthropology of the City

How do anthropologists study cities in the past, present and future? What makes a city a city? The students will learn how to look at cities and analyze some aspect of city behavior anthropologically. The class will also look at strategies people — as individuals and in groups — use to

cope with the demands posed by urban environments. Subjects will include culture, class, gender, ethics, institutions and urbanism in world perspective.

ANTH2515

3 Credits

#### Cyber Technology: Introduction to Cultural Anthropology for a Global Age

This course is about the relationship between people and technology in the contemporary world. Topics will include the evolution of technology from stone tools to nanotechnologies; the use of social media for the "Arab Spring"; cyber-bullying, online ethics and education; artificial intelligence and moral values; information technology and public dissemination; and the debate on how digital media builds or hinders communities. The course project will center on the creation of an ethnographic "digital artifact" for the web — building upon course themes that involve text, image and sound.

ANTH3000

3 Credits

#### Cultural Connections

Through the study of ethnology, students will explore the range of diversity within everyone's shared humanity. Emphasis will be placed on the nature of culture and varied forms in which it is expressed in the many diverse populations of the United States. Topics include social experiences of immigrants, ethnicity, generations, migrations, intergroup relations, race and diversity in American culture.

### Biology

BIOL1108

3 Credits

#### Ecology for Life: Building a Lifestyle for a Sustainable Planet

This course will provide the student with a basis for making lifestyle choices that are consistent with the goal of building a society that sustains the resources of earth for future generations. Both a survey of the principles of environmental science and practical applications will be covered. Group laboratory exercises, individual exploration of internet resources and live and moderated online discussions will supplement conventional content delivery.

Fall, Spring

BIOL1121

3 Credits

#### Topics in Modern Biology

This course will introduce students to the scientific method and help them to understand the basic concepts present in biology today and how they affect us in today's world. Students will gain proficiency in these concepts through the writing of papers and participation in online discussions.

BIOL2051

3 Credits

#### Biology of Nutrition

The nature and functions of components of the human diet. Topics in energy productions, weight control, hunger and malnutrition are studied along with the influence of alcohol, smoking, exercise, aging and illness on nutrition. Health maintenance is stressed. Laboratory includes diet evaluation, menu planning and chemical aspects of nutrients. Includes laboratory.

BIOL2053

3 Credits

#### Thinking the Environment

Students explore "how" people think about the environment by examining the works of explorers, scientists, philosophers and artists from the 18th century to the present. Authors including Darwin, Thoreau and Muir set the background for the primary focus on contemporary writers such as John Elder, Aldo Leopold, Edward Abbey, N. Scott Momaday and Barry Lopez.

### Business

BUSI0403

0 Credits

#### Financial Management

This course highlights and introduces the principles and concepts employed in the accounting, forecasting and budgetary areas of a hospitality business. It primarily focuses on assessing financial information to increase the students' understanding, knowledge and skills throughout the financial managerial decision-making process.

BUSI2162

3 Credits

#### Business Management and Entrepreneurship

The course will provide a balanced introduction to both entrepreneurship and small-business

# Business

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management with a focus on achieving and maintaining a sustainable competitive advantage as a small organization. Current issues, including global opportunities, service, quality and technology are highlighted throughout the class. Students will create an online business plan for their own business as a final project.

**BUSI2430**  
**3 Credits**  
**Seminar on Business in the 21st Century**

History of business, business gurus past and present, the new politics of business, global diversity, digital capital: the internet, new marketing, business values, power of knowledge, Eastern management practices and business decisions to remember.

**BUSI2450**  
**3 Credits**  
**Business Dynamics**

This course's objective is to explain what system dynamics is and how it can be successfully applied to solve business and organizational problems. System dynamics is both a currently utilized approach to organizational problem-solving at the professional level and a field of study in business, engineering and social and physical sciences.

**BUSI2460**  
**3 Credits**  
**Corporate Governance**

This course explores how America's corporations are governed. Primary emphasis is on the roles of shareholders, officers and directors. Other topics include accountants and auditors, investment banks and securities analysts and the Securities and Exchange Commission.

**BUSI2540**  
**3 Credits**  
**Risk Management and Insurance**

The course is geared toward consumers, providing students with a broad, descriptive survey of the insurance field, covering topics such as legal aspects, life and health and property and liability. Also included in the class is how to incorporate a stronger business-risk management component while maintaining a consumer orientation. Finally covered are aspects of insurance contracts and the insurance industry, providing a substantially more conceptual analysis and attention to business-risk management and public policy issues that exist in the current business world.

**BUSI2545**  
**3 Credits**  
**Integrated Risk Management: Techniques and Strategies for Managing Corporate Risk**

Over the years, risk management has developed separately in both the insurance and financial fields. Today, the two are finding value in each

other's tools and techniques. Integrated risk management combines the best of the two notions of risk management — insurance and financial — to develop solutions ideal for today's complex risk environment. Tools go beyond hedging strategies to also examine leveraging post-loss financing and contingent financing.

**BUSI2550**  
**3 Credits**  
**Data Communications and Computer Networks for Business**

This course maintains a balanced approach between the technical and practical aspects of data communications, providing a solid understanding not only of how things work, but of how they can be applied to create business solutions. Updated to reflect new technologies, this class covers current concepts such as voiceover wireless LAN, convergence, MPLS (Multiprotocol Label Switching) and PPP (Point-to-Point Protocol), while maintaining the pedagogical elements that have been successful for students in the past.

**BUSI2555**  
**3 Credits**  
**Inside the Art Market**

Large fortunes have been made buying and selling artwork. Increasingly, the wealthiest person from every country diversify their portfolios by investing in art (alongside more conventional investments in stocks, bonds, real estate, etc.). One would expect old art, accepted by historians, to be the most lucrative but, surprisingly, contemporary art (produced after World War II) is the most expensive and sought-after segment of the art marketplace. This course examines how the art world operates — how art is produced, branded, collected, valued and sold on the international market. (Equivalent to ART2555 Inside the Art Market.)

**BUSI2565**  
**3 Credits**  
**Fundamentals of Entrepreneurship**

Have you ever dreamed of being your own boss? This course will cover the basic steps required to establish and successfully operate a new business. Topics include business-idea generation and initial evaluation, basic financial considerations, building a business plan, setting up the business, marketing and operations and exit strategy.

**BUSI2640**  
**3 Credits**  
**Principles of Marketing**

The course will familiarize students with the basic concepts and tools of modern marketing. Students will learn the basic ingredients — product, price, distribution and promotion — of effective marketing decisions. The course will also consider the importance of environmental factors, especially those driven by cultural, regu-

latory, competitive or technological forces. Other topics include consumer behavior, market research, market segmentation and product positioning.

**BUSI2645**  
**3 Credits**  
**Principles of Management**

An introduction to management concepts and the role of management in business and other organizations. Designed for potential and new managers, the course focuses on the essential managerial functions — planning, organizing, motivating, communicating, directing, decision making, staffing — and how they relate to one another. A learner-centered, problem-based approach is used with an emphasis on the development of skills necessary to achieve success in a wide variety of organizations in the public and private sectors. Students will gain a solid grasp of how effective managers coordinate human resources and their own skills to contribute to the mission of an organization.

**BUSI2646**  
**3 Credits**  
**Advanced Business Practices**

Topics include: employee-management issues, marketing development and implementation, pricing products and services, distribution, promotional techniques, financial management and technology and management information.

**BUSI2648**  
**3 Credits**  
**Comparative Buyer Behavior**

Buyer motivation and behavior in Latino commercial activity in America; complexities of the Latino marketplace; advertising and media influences on purchasing decisions; consumer-affairs issues; interdisciplinary approach incorporating economic, social and psychological aspects; impact of e-commerce and the internet; and other considerations.

**BUSI2650**  
**3 Credits**  
**The Business of Media**

This course is designed to provide students with an appreciation of how various forms of media (print, electronic, entertainment, etc.) function as a business. The course examines how changes in technology, consumer behavior and deregulation have transformed the media industry and its production, distribution and consumption of content in a digital environment. Media issues, practices, trends and models are examined.

**BUSI3001**  
**3 Credits**  
**Personnel Administration**

This course will examine personnel management: supervision, oversight, management and leadership among individuals in the workplace as it relates to such issues as alcoholism, drug addiction in the work setting, workplace vio-

# Communications

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lence, harassment, lack of diversity, developing environmentally friendly policies and the need to meet global challenges. This will be accomplished via case-study analysis, in-class participation and interaction with peers and the faculty. This course can be repeated as topics change.

## BUSI3045

3 Credits

### Human Resources Management

Theories and practices of human-resources administration, formulation and application of human-resources policies for a cohesive workforce within an organization. Job analysis and evaluation, recruiting, selecting and training employees and executive development.

## BUSI3050

3 Credits

### Legal Issues in Human Resource Management

This course is designed to expose students to legislation and court rulings that impact the management of human resources in the organization. Topics include, but are not limited to, equal employment, privacy, employee selection and testing, wage/hour regulations, safety and health, worker's compensation, unemployment insurance, intellectual property and other emerging issues in employment law.

## BUSI3200

3 Credits

### Topics in Leadership I

This course will examine changing topics in leadership. Students will examine current practices and policies which promote high-impact leadership.

## BUSI3210

3 Credits

### Career Management Seminar

Career management seminar in Latino workforce; theory for career problem solving and decision making; an interdisciplinary approach to influence career planning and management interventions; understanding the steps leading to employability; and other considerations pertinent to career development. Prerequisites: ENGL1003 Introduction to Academic Writing and ENGL1004 Introduction to Academic Writing II. Corequisites: SPCH1111 Standard American-English and SPCH1112 Standard American Speech Patterns.

## BUSI3620

3 Credits

### Human Resource Systems

New approaches and techniques in human resource systems go beyond the theories and principles of personnel administration. A hands-on experience that utilizes case studies in each topic allows students to devise solutions. This course will use case studies, lectures, assigned

readings and recent rulings. State and Federal Court decisions that impact public, private and not-for-profit sector organizations will be thoroughly examined.

## BUSI3645

3 Credits

### Principles of Management II

This course presents a thorough and systematic coverage of management theory and practice, from a macroeconomics approach. Thus, providing students with the most current and up-to-date account of the changes taking place in the world of business management such as effective communication, managing conflict, politics and negotiation and using advanced information technology. Prerequisite: BUSI2645 Principles of Management.

## BUSI3850

3 Credits

### Business Practicum

Practical work placement of at least 150 hours in areas related to business studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

## BUSI4200

3 Credits

### Topics in Leadership II

Continued discussion and active collaboration regarding policies and practices which promote high-impact leadership. This course may be repeated for credit.

# Communications

## COMM1111

3 Credits

### Introduction to Corporate Communications

Examination of contemporary communications practices and techniques in a distinctly corporate environment; problems, situations and opportunities unique to large and complex business organizations; incorporation of emerging technologies; communication and global economic interdependence; discussion of necessary financial, organizational and human resource commitments.

*Fall, Spring*

## COMM1115

3 Credits

### Principles and Processes of Adult Learning

Theories of adult learning and goal creation. Comparing prior study skills with present courses. The course assesses skills in critical thinking, mathematics, writing and computer literacy. The course covers the challenges and the opportunities that diversity and multiculturalism present when

returning to the classroom. Finally, the course will help adult learners with informational literacy to adapt to the changing world of education.

## COMM2140

3 Credits

### New Technologies in Communication

An examination of new and incipient technologies in the communications industries; the internet, e-commerce, e-publishing, videoconferencing and the development of "electronic villages"; the expansion of asynchronous and synchronous corporate training programs; technology as a communication aid for handicapped individuals; social, economic and cultural ramifications of technological changes in communications.

*Fall, Spring, Summer*

## COMM2240

3 Credits

### Blogging: Sharing Ideas in Web 2.0

While many people consider blogging an enjoyable way to stay in touch with friends and family, a growing number of people and organizations recognize the "blogosphere" as a new venue for communicating and collaborating in an instantaneous, relevant and, in some cases, profitable manner. The advent of Web 2.0 and social-networking tools provide a global audience, as well as global participation in varied fields, including business, politics, education and news media. The course examines the history and features of a web log (blog) and its evolving applications.

## COMM2862

3 Credits

### Communication Through Social Media

Using the various applications, this class will explore the contemporary tools for social-media communications in business, education and for personal use, i.e., LinkedIn, Pinterest, Facebook, etc.

## COMM3031

3 Credits

### Digital Storytelling

Create stories, presentations and more using 21st-century technology and media as a means of communication, promoting learning and enhancing critical thinking skills in both the educational and global business environments. This course includes media literacy, copyright and Fair Use Practices.

## COMM3080

3 Credits

### Mass Media Law

This course provides the student with the basic legal framework of mass media law in order to understand the legal challenges inherent in the field.

# Communications

Anthony J. Petrocelli College of Continuing Studies  
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## COMM5118

3 Credits

### **Social Media — Branding and Leading in the Digital World**

Understanding and using best practices in social media marketing for branding and implementing an effective branding strategy. During this course, students will explore how to listen and monitor online competition and manage various online tools and processes for effective communication.

## COMM5143

3 Credits

### **Internet Research and Communication**

As an introduction to the structure, function and impact of the internet on research and communication, students will acquire information fluency (learn to find, analyze and effectively use information sources in select domains). The course will use basic research tools, including scanning and surveys.

## COMM5144

3 Credits

### **Visual and Media Literacy**

This course introduces the visual “ecology” (the role of media and visual image) in contemporary culture. Students will critique and manipulate representations among multiple media.

## COMM5145

3 Credits

### **Digitization, Visualization and Presentation**

An introduction to the method and purpose of digitization using basic visualization tools to manipulate and display both data, images and representations to accelerate cognitive learning and enhance one’s ability to persuade others.

## COMM5146

3 Credits

### **Interactive Communication and Networking**

This course explores networking and cyber tools (groupware) to enhance collaboration skills, support diversity and build intellectual capital.

## COMM5147

3 Credits

### **Organization Development and Strategy**

This course introduces organizational dynamics, quality-process improvement practices, the role of technology on competitive strategy and professional leadership responsibility.

## COMM5148

3 Credits

### **Self Knowledge, Action Research and Intellectual Capital**

Students will learn to understand personal learning styles, their impact on groups and their

importance in the workplace; develop learning plans; know “how to learn”; and understand experiential and collaborative learning in order to create organizational and domain knowledge.

## COMM5310

3 Credits

### **Professional Presentations**

Advanced communication techniques in the professional environment, collaborative presentations, effective written and oral styles and audience analysis, among other topics.

*Fall, Spring*

## COMM5311

3 Credits

### **Customer Service**

This course will focus on the theory of customer service and the practices that “best-in-class” companies apply to differentiate themselves from the competition. The course includes practical information and activities designed to teach students how to respond to customers, resolve problems and provide quality customer service.

*Fall, Spring*

## COMM5312

3 Credits

### **Mass Media: The Home Front**

The course is designed to provide students a forum through which they will experience authentic examples of the major media of mass communication during World War II as presented to American audiences on the home front. Through examples of original broadcasts of newsreels, feature films, short subjects, print media, animation and radio, students will gain an understanding of mass communication and how it was designed to influence, inform and entertain its intended audience, the American public.

## COMM5313

3 Credits

### **Mass Media: Television**

Through original media, this course illustrates the history and impact of television as a medium of mass communication. The course covers varied genres of television programming from the post-war years through the 1970s. Genres discussed include news and politics, comedy/variety, drama, adventure and science fiction, with special attention given to notable television pioneers (personalities) such as Edward R. Murrow, Walter Cronkite, Milton Berle, Rod Serling and Ed Sullivan.

## COMM5314

3 Credits

### **Research in a Digital World**

Introduction to and manipulation of research and communication using the digital diversity of research materials. These will include using the internet, the library’s online databases, the “invisible” web, library catalog sites, blogs, wikis

and probably more. Students acquire search and evaluation skills (learn to find, analyze and effectively use information sources). Each student will also be expected to write annotations and explanations of his/her sources. This material is spaced out over the semester so that assembly is made relatively simple and the process progressive. Each student will be engaged in a semester-long project on a subject of his/her choice as guided and approved by the professor.

## COMM5322

3 Credits

### **Customer Service for Help-desk Professionals**

This course is designed to provide individuals interested in the field of technical customer support with a guide to the “soft skills” and the “self-management skills” needed to deliver excellent customer support at the help desk. It provides the student with a better understanding of what a career in customer support would entail with strong real-world computer support, examples, case studies and exercises.

## COMM5324

3 Credits

### **Intercultural Communication in the Global Workplace**

This course offers students the solid theoretical foundation they need, and a highly engaging writing style filled with personal examples culled from the personal experience of living and working abroad. The course zeroes in on the specific needs of a firm, from broad cultural and business values to the influence of culture on negotiations, to the structure of the firm. Part of the course focuses on applying cultural concepts to real-life situations. It also emphasizes teamwork in intercultural groups. Legal issues in intercultural business communication are covered extensively. The first part of the course contains a detailed discussion of cultural values that influence intercultural business communication.

## COMM5329

3 Credits

### **Communication in a Changing World**

A new course for the basic distance-learning class, this course is distinguished by its emphasis on ethics and civility in communication; its original, comprehensive and integrated treatment of computer-mediated communication; and its authentic, engaging examples drawn frequently from popular culture. The course regards communication as integral to the development of students as responsible citizens in a diverse world. Its goal is to help create good communicators who are skilled in their construction, presentation, understanding and evaluation of messages, and who also have the knowledge and willingness to take responsibility for their communication behaviors.

# Computer • Decision Sciences • Economics • English

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## COMM3331

3 Credits

### Leadership Communication

This course guides current and potential leaders in developing the communication capabilities needed to lead organizations effectively. It brings together managerial communication and concepts of emotional intelligence to create a new model of communication skills and strategies for corporate leaders. It begins with sections on the core communication skills of developing strategy, analyzing an audience, writing all types of business documents and correspondence and designing and delivering effective PowerPoint presentations — all from a leadership perspective. The course takes students through sections on emotional intelligence, cultural literacy and meeting management and team leadership before concluding with chapters on internal and external organizational communication.

## COMM3840

3 Credits

### Media Ethics

Examination of ethics in print and broadcast media using current news articles, programming, video portrayal and commercials. Students participate in collaborative activities and reviews of contemporary topics. Emphasis on class discussion and critical review.

## COMM3850

3 Credits

### Communications Practicum

Practical work placement of at least 150 hours in areas related to communication studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

## Computer Management

## MIS1135

3 Credits

### Introduction to Computers

An overview of computers. Topics include hardware, software components, word processing, spreadsheets, databases, email and the internet.  
*Fall, Spring*

## MIS2111

3 Credits

### The Internet, E-commerce and Technology

This course will cover various topics relating to competitive advantages in today's global markets. Discussion includes: internet strategies, electronic business concepts, total quality management (TQM), profit implications in

the leveraging of intellectual property and management adaptation to and adoption of emerging technologies.

*Fall, Spring*

## MIS3165

3 Credits

### Principles of Web Design

This course will help students build their HTML skills to enhance webpages and gain a critical eye for evaluating website design. Updated for the latest web-design technologies, this course has increased coverage of XHTML and Cascading Style Sheets to keep the curriculum up to date. Screen shots and browser information reflect the latest, most current web trends and technology. This class will provide the solid foundation needed to build successful websites.

## Decision Sciences

## DSCI1128

3 Credits

### Introduction to Mathematical Methods

This course focuses on mathematical and algebraic concepts in relationship to business applications, including linear and nonlinear functions, rational functions, exponential and logarithmic functions. Elements of calculus such as limits and derivatives are introduced. Business applications include supply, demand and equilibrium, breakeven analysis and financial mathematics.

## DSCI1142

3 Credits

### Introduction to Statistics

Collection and presentation of data; descriptive measures; sets; probability theory; random variables; mathematical expectations; discrete and continuous probability distributions, including Binomial, Poisson and Normal; sampling distributions; introduction to regression and correlations. (Equivalent to DSCI2029 Introduction to Statistics.)

## Economics

## ECON1121

3 Credits

### Macroeconomics

Basic macroeconomics. An introduction to the nature of economic analysis and reasoning, institutions and issues of economic policy; emphasis on aggregate economics, including national income, monetary and fiscal policy and international trade.

*Fall, Spring*

## ECON1122

3 Credits

### Microeconomics

The analytical and practical applications of microeconomics; problems of consumer behavior and demand; the allocation of resources of production; and factor pricing and market conduct under pure competition, imperfect competition, oligopoly and monopoly.  
*Fall, Spring*

## ECON2291

3 Credits

### Environmental and Ecological Economics

The economic forces underlying environmental problems, elements of demography and population policy, waste disposal, the cost of clean water, cost-benefit analysis, materialism and attempts by industry to comply with and avoid existing laws.

*Summer I*

## IBUS2261

3 Credits

### Managerial Economics

The application of economic analysis to business decisions involving risk, uncertainty and forecasting. Prerequisites: ECON1121 Macroeconomics and ECON1122 Microeconomics.

*Fall, Spring*

## English and Literature

## ENGL0097

3 Credits\*

### Basic English

Stresses the structure of the language and the basics of grammar, standard usage, vocabulary building, reading comprehension and fundamental writing skills; course work focuses on the production of clear and effective paragraphs.  
*Fall, Spring*

## ENGL1000

1 Credit

### Developing Academic Skills

This interdisciplinary course focuses on the development of essential academic and interpersonal skills and strategies which facilitate academic learning. Topics include: study techniques, note taking, time management, test preparation, test taking, critical thinking and decision-making skills, motivation, stress management, relaxation techniques, learning styles, library and internet research and advocacy skills. Classroom instruction, discussion and application. For Educational Opportunity Fund students only. Corequisite: PADM1001 Leadership Seminar.

*\*Prerequisite credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).*

# English and Literature

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## ENGL1002

1 Credit

### Developing Academic Skills II

This interdisciplinary course focuses on providing students with advanced academic and psychosocial skills and strategies that are essential to their academic success and personal development. Topics include self-assessment and self-monitoring; critical thinking; college reading; research libraries and information literacy; inquiry into personal, academic and societal values; exploration of career opportunities; and their academic and social requirements. Classroom instruction, discussion and application. For Educational Opportunity Fund students only. Prerequisite: ENGL1000 Developing Academic Skills.

## ENGL1005

3 Credits

### Introduction to Academic Writing

An introductory course in essentials of effective English writing, including exercises in grammar, idiomatic expression, organization of ideas, contemporary usage and rhetorical styles. Prerequisite: ENGL1111 Literature and Composition I.

## ENGL1004

3 Credits

### Introduction to Academic Writing II

This course is a continuation of ENGL1005 Introduction to Academic Writing. The course expands the students' writing experience in different modes of essay writing, basic report writing and interpretive writing after reading selected stories from the textbook. Prerequisite: ENGL1005 Introduction to Academic Writing.

## ENGL1006

1 Credit

### Critical Reading and Critical Thinking

The practice of close reading of academic texts, with focus on analysis, annotation, comprehension and insightful questioning; emphasis also on making interdisciplinary connections; class discussion, journal keeping and essay writing.

## ENGL1101

3 Credits

### English Composition I

Intensive study and practice in expository writing; readings to stimulate student writing are drawn primarily from the essay.

*Fall, Spring*

## ENGL1102

3 Credits

### English Composition II

Intensive study and practice in critical writing, emphasizing documentation and the process of research; readings are drawn primarily from poetry, the essay and short works of fiction and drama. Prerequisite: ENGL1101 English Composition I.

*Fall, Spring*

## ENGL1111

3 Credits

### Literature and Composition I

Principles of grammar, rhetoric and style; expository writing; introduction to literary forms, especially short fiction. Prerequisite to all other English courses.

*Fall, Spring*

## ENGL1112

3 Credits

### Literature and Composition II

Expository writing; literary criticism; introduction to literary forms, especially drama, poetry and the novel; research techniques. Prerequisite: ENGL1111 Literature and Composition I.

*Fall, Spring*

## ENGL2209

3 Credits

### Business Communications

Clear and effective business communication, both oral and written. Appropriate style, tone and organization for reports, memos and letters.

## ENGL2211

3 Credits

### Masterpieces of Literature I

Readings in Greek, Roman and Hebrew masterpieces.

*Fall*

## ENGL2212

3 Credits

### Masterpieces of Literature II

Reading in medieval, renaissance and modern masterpieces.

*Spring*

## ENGL2221

3 Credits

### Sports and the Athlete in American Literature

The sports figure and athlete as literary figures; the metaphorical/symbolic use of the sports theme by American writers. Readings from Twain, Hemingway, Updike, Malamud and others.

*Fall, Spring, Summer*

## ENGL2224

3 Credits

### Career Women in Literature and Films of the 1940s and 1950s

Career women in American popular and literary culture during the 1940s and 1950s, as portrayed in films, novels and short fiction; the influence of the Depression, World War II and the emerging women's movement; films discussed include "Mildred Pierce," "All About Eve," "Adam's Rib," "A Star Is Born" and "Snake Pit."

*Fall, Spring*

## ENGL2227

3 Credits

### CyberVoices: Internet Literary Communities

CyberVoices students will visit various internet literary communities, including electronic magazines (e-zines), chat rooms and web rings and explore the dynamics of these writer communities and read their members' short fiction, poetry and essays. Through assigned readings, students will begin by learning the fundamentals of each literary genre so that, when reading cyber literary works, they will do so with an adequate level of sophistication and discrimination.

## ENGL2251

3 Credits

### African-American Literature

A survey of the writings of black Americans, with emphasis on the Harlem Renaissance and major figures. Readings from Richard Wright, Gwendolyn Brooks, Ralph Ellison, Langston Hughes, Zora Reale Hurston and others.

*Fall, Spring, Summer*

## ENGL2254

3 Credits

### A Literary Tour of New York City

Take a virtual tour of literary New York (with a side trip to New Jersey)! In this course, students will read and discuss one or two short stories a week — some classic, some destined to be classics — and follow in the footsteps of authors and their characters as they walk the streets of New York (and yes, some streets in New Jersey). In-depth online discussion of a variety of literary issues raised in the stories including focus on the New York and New Jersey locations described. Prerequisite: ENGL1111 Literature and Composition I.

## ENGL2257

3 Credits

### Italian-American Literature: In and Out of the Kitchen

This course will introduce students to Italian-American literature beyond the Mafia and other common (mis)interpretations of everyday Italian-American life that are often portrayed in film. Through verse and prose, students will read examples of female voices that sway toward the kitchen and family. They will consider tradition, culture, assimilation, gender, stereotypes and the male gaze. By the end of the course, students will have an understanding of the Italian-American women's experience and voice, which will allow them to later expand their understanding of the male and female immigrant experience in America.



# English as a Second Language

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## ENGL2241

3 Credits

### Politics in Modern Literature

Political ideology in 20th-century fiction and drama. Among others, readings from Orwell, Dostoevsky, Koestler, Malraux, Silone, Mailer, Brecht, Claudel and Sartre.

*Fall, Spring, Summer*

## ENGL2257

3 Credits

### American Literature

Significant works and authors in American literature from the colonial period through the 20th century. Writers of the 19th century will be stressed.

## ENGL2259

3 Credits

### Creative Writing

A workshop in imaginative literature providing sustained practice in individual writing projects.

*Summer*

## ENGL2261

3 Credits

### Strategies and Skills for Academic Success

An interdisciplinary course focusing on the development of skills in college writing, computation, reading comprehension, vocabulary, terminology, logical thinking, study techniques, note-taking, time management and library use. Classroom instruction, workshop sessions, field trips, computer-assisted instruction and individual tutoring.

*Summer*

## ENGL2294

2 or 3 Credits

### Speech

Voice and diction; practice in enunciation, production of voice tone and the sounds of standard English speech.

*Fall*

## ENGL2811

3 Credits

### Women Voices International Survey

Through novels, short stories and nonfiction, students are offered an international survey of attitudes, perceptions and ideals of women from 11th-century Japan to 20th-century Nigeria. Discussions explore the status of women as well as promote an understanding of common themes found in all cultures.

## ENGL2822

3 Credits

### Modern Drama

Plays by the greatest dramatists of the 20th century. Class discussion and short critical essays about a number of these plays.

*Fall*

## ENGL2824

3 Credits

### Popular Literature

This course examines various popular literary genres which may include the Gothic narrative, mystery, science fiction, fantasy, romance, best-seller, nonfiction bestseller and Young Adult Fiction, which tends to be a cross-generational phenomenon, among others. Topics that may be considered will be what makes something "popular," development of these popular genres, meanings and messages characteristically embedded in the various popular genres, stereotypes, popular images, the significance and values associated with so-called "high" and "low" and "middle-brow" literature, context of the popular narrative, revelation of its time/culture/belief system within the text and narrative patterns characteristic of popular genres. A film adaptation may be investigated as well as a type of popular literature.

## ENGL3100

3 Credits

### Steps in Research and Writing

This course will define students' techniques in developing writing for varied purposes, especially for research. An introduction to the various types of research papers and content to be presented. Style and organization of writing a paper, locating and evaluating information from traditional library resources and online databases, primary sources and the internet will be explored.

## ENGL3111

3 Credits

### Introduction to Memoir Writing

Everyone has a unique story to tell about their past as they remember it. A memoir takes real events from one's life and conveys them through a fictional style of writing. This course consists of reading and analyzing popular memoirs while building the skills necessary to complete one's own memoir. Literary styling and the ability to critique writing are used throughout the course. Prerequisite: ENGL1102 English Composition II or ENGL1112 Literature and Composition II.

## ENGL3115

3 Credits

### Food Writing

Do you enjoy reading food magazines and talking about what you ate or are planning to eat? This course will focus on how to write precisely about food. Taste, restaurant environment and the history of the dishes will be considered in pieces. (No cooking skills required!) Ultimately, good writing is the basis for any strong piece of writing, and the skills developed in this class can be transferred to other subjects. Readings will include published magazine articles as well as a current book on the subject.

## ENGL3121

3 Credits

### Detective Fiction

Readings in classic detective fiction as well as critical readings analyzing the genre. An investigation of the way well-known detective writers such as Edgar Allan Poe, Arthur Conan Doyle and Agatha Christie, among others, have shaped the genre of detective fiction with attention to classic literary strategies and structure.

## ENGL3131

3 Credits

### 20th-century American Worker in Literature

Students will explore three American novels focusing on the world of work in America during the first half of the 20th century. Students will read Upton Sinclair's *The Jungle*, John Steinbeck's *The Grapes of Wrath* and Sloan Wilson's *The Man in the Gray Flannel Suit* and discuss these works in their social, historical and political contexts.

## ENGL3141

3 Credits

### Travel Writing

The art and practice of travel writing, explored through contemporary travel essays. The class will write and discuss a range of essays — from personal essays to commercial reviews. Students will write about where they are, where they have been or where they would like to be. Prerequisite: ENGL1112 Literature and Composition II or equivalent.

# English as a Second Language

## ESL0101

0 Credits

### Speaking and Structure Practice

This course combines creative and dynamic learning activities with grammar study and listening exercises to improve students' ability to communicate in English.

## ESL0102

0 Credits

### Reading and Writing

Instructors help students with reading comprehension, writing styles and sentence structure using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and magazines.

# English as a Second Language

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## ESL0105

0 Credits

### Guided Research

Students approach research topics in various fields of study, generating ideas, collecting information, framing a thesis statement, developing an outline and finally writing a research paper.

## ESL0104

0 Credits

### Speaking and Structural Practice II

This course continues the grammar study begun in ESL0101 Speaking and Structure Practice via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English. Prerequisite: ESL0101 Speaking and Structure Practice.

## ESL0105

0 Credits

### Reading and Writing II

A continuation of ESL0102 Reading and Writing consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media. Prerequisite: ESL0102 Reading and Writing.

## ESL0106

0 Credits

### Guided Research II

A continuation of ESL0103 Guided Research in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing. Prerequisite: ESL0103 Guided Research.

## ESL0107

0 Credits

### Speaking and Structural Practice III

This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104 Speaking and Structural Practice II via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English. Prerequisite: ESL0104 Speaking and Structural Practice II.

## ESL0108

0 Credits

### Reading and Writing III

A continuation of ESL0105 Reading and Writing II consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media. Prerequisite: ESL0105 Reading and Writing II.

## ESL0109

0 Credits

### Guided Research III

A continuation of ESL0106 Guided Research II in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

## ESL0110

0 Credits

### Speaking and Structural Practice IV

This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104 Speaking and Structural Practice II and ESL0107 Speaking and Structural Practice III via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English.

## ESL0111

0 Credits

### Reading and Writing IV

A continuation of ESL0108 Reading and Writing III consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

## ESL0112

0 Credits

### Guided Research IV

A continuation of ESL0109 Guided Research III in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

## ESL0113

0 Credits

### Speaking and Structural Practice V

This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104, ESL0107 and ESL0110 Speaking and Structural Practice II, III and IV via dynamic learning activities and learning exercises to improve a student's ability to communicate orally in English.

## ESL0114

0 Credits

### Reading and Writing V

A continuation of ESL0111 Reading and Writing IV consisting of the study of reading comprehension and writing style using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

## ESL0115

0 Credits

### Guided Research V

A continuation of ESL0112 Guided Research IV in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

## ESL0116

0 Credits

### Speaking and Structural Practice VI

This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104, ESL0107, ESL0110 and ESL0113 Speaking and Structural Practice II, III, IV and V via dynamic learning activities and learning exercises to improve a student's ability to communicate orally in English.

## ESL0117

0 Credits

### Reading and Writing VI

A continuation of ESL0114 Reading and Writing V consisting of the study of reading comprehension and writing style using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

## ESL0118

0 Credits

### Guided Research VI

A continuation of ESL0115 Guided Research V in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

## ESL0120

0 Credits

### U.S. Business ESL — Writing/Grammar

Advanced-level ESL writing and grammar with a focus on U.S. business. Materials include textbooks, newspaper articles, case studies and multimedia tools.

## ESL0121

0 Credits

### U.S. Business ESL — Listening

Advanced-level ESL listening with a focus on U.S. business via dynamic learning activities and listening exercises.

## ESL0122

0 Credits

### U.S. Business ESL — Speaking

Advanced-level ESL speaking and pronunciation with a focus on U.S. business via dynamic learning exercises to improve a student's ability to communicate orally in English.

## ESL0123

0 Credits

### U.S. History ESL — Writing/Grammar

Intermediate-level ESL writing and grammar with a focus on U.S. history. Materials include textbooks, newspaper articles, case studies and multimedia tools.

# English Writing • Environmental Science

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ESL0124

0 Credits

## U.S. History ESL — Listening

Intermediate-level ESL listening with a focus on U.S. history via dynamic learning activities and listening exercises.

ESL0125

0 Credits

## U.S. History ESL — Speaking

Intermediate-level ESL speaking and pronunciation with a focus on U.S. history via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0126

0 Credits

## U.S. Culture ESL — Writing/Grammar

Beginner-level ESL writing and grammar with a focus on U.S. culture. Materials include textbooks, newspaper articles, case studies and multimedia tools.

ESL0127

0 Credits

## U.S. Culture ESL — Listening

Beginner-level ESL listening with a focus on U.S. culture via dynamic learning activities and listening exercises.

ESL0128

0 Credits

## U.S. Culture ESL — Speaking

Beginner-level ESL speaking and pronunciation with a focus on U.S. culture via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0129

0 Credits

## American Film and Culture ESL — Writing/Grammar

ESL writing and grammar with a focus on American culture through the use of films linked to American history and American cultural icons. Films include "Some Like It Hot," "Shane," "The Best Years of Our Lives" and "In the Heat of the Night."

ESL0130

0 Credits

## American Film and Culture ESL — Listening

ESL listening with a focus on American culture through the use of films linked to American history and American cultural icons. Films include "Some Like It Hot," "Shane," "The Best Years of Our Lives" and "In the Heat of the Night."

ESL0131

0 Credits

## American Film and Culture ESL — Speaking

ESL speaking and pronunciation with a focus on American culture through the use of films

linked to American history and American cultural icons. Films include "Some Like It Hot," "Shane," "The Best Years of Our Lives" and "In the Heat of the Night."

ESL0132

0 Credits

## TOEFL ESL — Writing/Grammar

ESL writing and grammar with a focus on TOEFL reading comprehension, vocabulary and composition.

ESL0133

0 Credits

## TOEFL ESL — Listening

ESL listening with a focus on TOEFL via dynamic learning activities and listening exercises.

ESL0134

0 Credits

## TOEFL ESL — Speaking

ESL speaking and pronunciation with a focus on TOEFL via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0135

0 Credits

## Short Stories and Songs ESL — Writing/Grammar

ESL writing and grammar with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0136

0 Credits

## Short Stories and Songs ESL — Listening

ESL listening with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0137

0 Credits

## Short Stories and Songs ESL — Speaking

ESL speaking and pronunciation with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0140

0 Credits

## Conversation in English

Students will demonstrate the ability to read and speak English appropriately so they can serve as

language and literary models for their community. Students will participate actively in responding to topics introduced during classroom discussions.

ESL1501

3 Credits

## Effective Business Communication

This course uses a workshop approach to focus on clear and concise writing, vocabulary and oral communication for international students looking to do business with multinational organizations. The course will introduce the basics of good business writing, including papers using the APA format, documenting sources and internet usage, as well as the culture and etiquette of business. (Equivalent to HRTM1301 Effective Business Communication.)

*Fall, Spring*

## English Writing

ENGW3006

3 Credits

## Persuasive Writing

Analysis of and practice in forms of persuasive writing; study of major rhetorical theories as they relate to public relations, advertising, proposals and position papers.

## Environmental Science

ENVR1104

3 Credits

## Principles of Physical Geography

This course studies the major elements of the natural environment and their interrelation. The principles and processes essential to the understanding of the natural environmental system and their significance are stressed. The elements studied include: atmosphere, weather and climate, continents, landforms, river systems, ocean currents and tides, soils, vegetation, animal and marine life. Non-laboratory science only.

ENVR3001

3 Credits

## Principles of Energy

An introduction to the production of conventional and alternative energy resources. Topics include renewable energy resources (solar, wind, hydro, biomass, geothermal); passive and active solar-energy building designs; and home-energy efficiency, nuclear power and fossil fuels (coal, oil and natural gas). Modern approaches to energy efficiency and electricity production and storage (e.g., hydrogen fuel cells) and the effects of energy use on the environment will also be examined.

# Finance • Fine Arts

Anthony J. Petrocelli College of Continuing Studies  
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## Finance

FIN2201

3 Credits

### Business Finance I

Financial management, funding, assets and liabilities, financial analysis and planning, financial services, budgeting, capital and other relevant topics will be covered.

FIN2202

3 Credits

### Business Finance II

Principles of valuation; capital budgeting, risk analysis, dividend policy, corporate mergers and other reorganizations; and securities, managing working capital, capital structuring, analysis of financial statements and related topics. Prerequisite: FIN2201 Business Finance I.

FIN2203

3 Credits

### Personal Finance

Efficient management of personal and family finances; family financial planning; tax, insurance, mortgage and investment issues; protection of assets and credit management; and retirement and estate planning.

FIN2211

3 Credits

### Real Estate Finance and Investments

The course is designed to be authoritative, rigorous and trustworthy, making it a classic in the field. It will provide students with the tools they need to understand and analyze real estate markets and the investment alternatives available to both debt and equity investors.

## Fine Arts

ART1061

2 or 3 Credits

### Cultural Arts

Studies in the fine arts, complemented by visits to the theater, opera, ballet and art museums.  
*Fall, Spring*

ART1062

3 Credits

### Latino Cultural Arts

This course is an overview of the cultural and artistic contributions of the Latin-American countries. Topics include art from the Meso-america, Inca, Mayan and Aztec civilizations; colonial-era and social revolution art; modern surrealism; and national symbolism.

ART1071

2 or 3 Credits

### Film and Society

The film from the earliest years to the present, as a reflection of the social, political and psycho-

logical ideas defining the modern world; the film as an art form.

*Fall, Spring*

ART1110

3 Credits

### New York Art World

This course acquaints students with the unique stimulus that only firsthand encounters with actual art objects can provide. It includes extensive field-trip experiences to New York City museums and galleries.

ART2071

3 Credits

### Films of John Ford and the American Landscape

The films of John Ford with emphasis on his vision of the American frontier and the American personality; the director as artist; screening and discussion of "Grapes of Wrath," "My Darling Clementine," "Fort Apache," "The Searchers" and others.

*Fall, Spring, Summer*

ART2075

3 Credits

### Approach to Latin-American Art

This course will provide students with an understanding of Latin-American artistic movements, the history of major tendencies in Latin-American art and its relationship to Latin-American political and social structures.

ART2081

3 Credits

### History on Film

Historical events and personalities as seen through the filter of the film industry; issues of historical accuracy and artistic license; political, social and cultural factors; films include both current and past productions. The course may be repeated for credit. (Equivalent to HUMN2081 History on Film.)

*Fall, Spring, Summer*

ART2082

3 Credits

### Shakespeare on Film

Shakespeare's plays as rendered on film by the British and American film industries; films with Olivier, Welles, Branagh, Brando, Gielgud, Richardson and Cagney, among others, screened and discussed.

*Fall, Spring, Summer*

ART2085

3 Credits

### Crime Literature and Film

Hollywood translates American crime literature, fact and fiction, into film. Screenings and discussion of films representative of various cultural periods. Films include "Maltese Falcon," "Blue Dahlia," "Desperate Hours," "Bonnie and Clyde," "In Cold Blood," "Goodfellas" and "Fargo."

*Fall, Spring, Summer*

ART2085

3 Credits

### Cinematic History: Films of the 1950s

Cinematic experiences, historical perspectives and movie techniques are examined in the decade encompassing discovery of the art of moving pictures. The films of the period will cover the actors of the decade, the films and topics that were relevant to the time period, the directors and their message, societal moods and ideologies, as well as the "movie houses" that presented these timeless classics.

ART2091

3 Credits

### American Cinema/American Culture

This course offers a cultural examination of the American moviemaking industry, with particular attention to the economic and aesthetic institution of Hollywood. It covers the birth of American cinema as it was known then and as it is known today. Movies, which include all aspects of the "creation process," are examined and are related to culture in the 20th and 21st centuries.

ART2211

3 Credits

### History of Photography from Daguerreotype to Digital

This course follows the history of the early pioneers of photography and traces the technical advancements up to and including modern digital imaging. In addition to the historical aspect of the photographic medium, the course will also cover the basic elements of design, composition and camera manipulation that go into the creation of a good photographic image.

ART2411

3 Credits

### Art History: Renaissance to Contemporary

In order to help students gain a greater appreciation and understanding of art from the Renaissance up to today, this course will consider how artists of the past (and present) viewed the world and communicated their visions. Students will learn to critically describe and analyze visual objects using art-historical vocabulary and methodologies. Students will utilize a variety of online media resources and gain significant experience in improving their writing through peer and instructor feedback.

ART2555

3 Credits

### Inside the Art Market

Large fortunes have been made buying and selling artwork. Increasingly, the wealthiest person from every country diversify their portfolios by investing in art (alongside more conventional investments in stocks, bonds, real estate, etc.). One would expect old art, accepted by histori-

# History

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ans, to be the most lucrative but, surprisingly, contemporary art (produced after World War II) is the most expensive and sought-after segment of the art marketplace. This course examines how the art world operates — how art is produced, branded, collected, valued and sold on the international market. (Equivalent to BUSI2555 Inside the Art Market.)

## ART2650

3 Credits

### **Cinematic History: Films of the 1930s**

Cinematic experiences, historical perspectives and movie techniques are examined in the decade encompassing discovery of the art of moving pictures. The films of the period will cover the actors of the decade, the films and topics that were relevant to the time period, the directors and their messages, societal moods and ideologies, as well as the “movie houses” that presented these timeless classics.

## ART2655

3 Credits

### **Cinematic History: Films of the New Millennium**

Cinematic experiences, current perspectives and movie techniques are examined as today’s filmmakers mold and shape the vision for societal views of the present. The films of the period will cover the actors of the time, the films and topics that are relevant to the time period known as the New Millennium. Directors and their messages, as well as current societal moods and ideologies, will be examined and discussed.

# History

## HIST1125

3 Credits

### **Business History**

The evolution of business institutions from the period of the ancient Greeks to present multinational corporations; topics include medieval concepts, the Protestant ethic, capitalism, the age of business expansionism and the advent of the big firm of modern business.

*Spring*

## HIST2115

3 Credits

### **The Revolutionary Nation: U.S. History I**

The history of the United States can be classified and described as a record of numerous upheavals and revolutions in ideals and actions. The purpose of the course will be to examine American history in this manner. The course can be described as a thematic survey of American history. While all major events and people throughout the first half of America’s past will be addressed, there will also be a consistent

overall theme of revolution and social upheaval that will be discussed and debated in detail. Thus, students will gain a better understanding of America’s past as not merely a chronological chain of events, but as a malleable and active discussion on change and progress.

## HIST2116

3 Credits

### **The Revolutionary Nation: U.S. History II**

This course is the second part of a two-semester sequence that examines American history from the perspective of its numerous upheavals and revolutions in ideals and actions. Students will gain a better understanding of America’s past, not merely as a chronological chain of events, but as a malleable and active discussion on change and progress beginning with the Gilded Age and ending with the current day. Prerequisite: HIST2115 The Revolutionary Nation: U.S. History I.

## HIST2118

3 Credits

### **Ethical Issues in History**

Examines critical ethical debates that have shaped the American mind for more than 200 years. Ethical debates occur in historical places and contexts and have changed American conception of ethics and morality. Issues may include religious tolerance, slavery and anti-slavery, civil rights, feminism, privacy, labor and capital multiculturalism.

## HIST2231

3 Credits

### **The Heritage of the Past I**

Basic topics of Western civilization, origin of the universe and man, dynamics of civilization, the ancient Middle East, Greco-Roman civilization, the development of Christianity and the Middle Ages.

*Fall*

## HIST2232

3 Credits

### **The Heritage of the Past II**

Basic topics in Western civilization, the Renaissance, Reformation, the Enlightenment, the French Revolution and the Age of Napoleon, 19th-century national and ideological revolutions, the Industrial Revolution and the roots of the 20th century. Prerequisite: HIST2231 The Heritage of the Past I.

*Spring*

## HIST2233

3 Credits

### **The Modern World**

World history from 1848 to the present day. Topics include imperialism, World War I, the emergence of totalitarian systems, World War II, the Cold War, postwar decolonization and the challenges of our time.

*Fall, Spring*

## HIST2282

3 Credits

### **Government and the Individual**

The nature and functions of government; the Constitutional framework; Federalism; civil rights; public opinion and public information; interest groups and political pressures; campaigns, voting and elections; bureaucracy; the courts, the president and Congress.

*Intersession*

## HIST2285

3 Credits

### **New Jersey History**

In this course, students will study New Jersey both chronologically and thematically from an interdisciplinary viewpoint. The themes — geography, industrialization and farming, population and immigration, transportation — will help students list important concepts regarding New Jersey, which the chronology will anchor the course into a historical timeline.

The course also will present an accurate, comprehensive profile of the state of New Jersey and its identity, leaving students with a better understanding of and appreciation for the Garden State.

## HIST2292

3 Credits

### **Asian Cultural History**

Basic historical eras of China, India and Japan from ancient times to the 19th century; their influence on contemporary Eastern civilization.

*Intersession*

## HIST2297

3 Credits

### **History of Science and Technology**

The history of science and technology from pre-modern times to their preeminence in the 20th century; concentration on important developments: harnessing of energy sources, mechanical devices, use of natural resources, increases in scientific knowledge and methodology, development of modern medical practices, etc.

*Fall, Spring, Summer*

## HIST2391

3 Credits

### **Political History of Latin America I**

Spanish conquest, colonial and early national periods of selected Latin-American countries with emphasis on social, economic and political development.

## HIST2392

3 Credits

### **Political History of Latin America II**

Main political, economic and social events of Latin America during the 20th and 21st centuries as well as sector analysis such as demography, environment, poverty, public debt, ideologies and social movements. Specific countries will be used as case studies.

# Honors • Hotel and Restaurant Management

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## HIST2852

3 Credits

### Modern Cultural History

A presentation and analysis of Western cultural concepts, trends and issues and their relationship to and effect upon political and economic developments. This concentration will develop, in depth, culture and ideology in relation to modern society.

## HIST2853

3 Credits

### The Political Vision of Abraham Lincoln

An examination of Abraham Lincoln's views on the American experiment; his understanding of the dynamics of politics; his positions on major issues; his political campaigns; his creative use of language to define America and American values; his legacy and importance today.

## HIST4562

3 Credits

### Leadership of the Founding Fathers

This course will examine 10 of the nation's founding fathers — their lives, their roles in the development of the early government and the impact their individual leadership still has on the United States today. (Equivalent to PADM4562 Leadership of the Founding Fathers.)

## Honors

## HON2251

3 Credits

### Honors Seminar

An interdisciplinary seminar that focuses on a single topic or theme, examining it from a variety of academic perspectives, including literature, philosophy, psychology, history, economics, fine arts and science. Special features include guest lectures, panel discussions, field trips, independent study and films.

Spring

## Hotel and Restaurant Management

*International School of Hospitality and Tourism Management*

### Core Courses

## HRTM2210

3 Credits

### Sales and Marketing for Hospitality Managers

This course provides hospitality students with an understanding of marketing plans, market

segmentation, positioning, sales strategies, consumer behavior, advertising and promotion, pricing theory and group sales as they apply to the hospitality industry.

## HRTM2211

3 Credits

### Accounting for Hospitality Managers

This course emphasizes specific accounting information and procedures needed by hospitality students to become productive managers. Topics include Uniform System of Accounts, budgeting, cost behavior and standard costs as related to various areas of the industry. Prerequisite: ACCT2021 Introductory Financial Accounting.

## HRTM2233

3 Credits

### Quantity Food Production

Management of volume food production in catering, health care, institutional, commissary and airline applications. Menu and production planning and organization, control, analysis and performance improvement are emphasized.

## HRTM2235

3 Credits

### Sustainability and Ecotourism

This course will introduce tenets of sustainability and how environmental organizations, local communities, businesses and governments can work together to benefit from natural resources while preserving them. The concept and origins of ecotourism will be critically examined. Ecotourism as a source of foreign exchange will be explored and how tourism businesses can benefit from sustainable tourism development.

## HRTM3108

3 Credits

### Nutrition, Sanitation and Food Safety

This course is designed to provide students with the basic food-service knowledge needed to supervise staff in this segment of the hospitality industry. Students gain an understanding of food-borne illness and prevention of it. Additional topics covered include: food spoilage, storage, transportation, government regulations and sanitation codes. This course will also focus on basic nutrition information necessary for the food-service professional in any environment. What are the legal and ethical responsibilities to guests?

Fee

## HRTM3208

3 Credits

### Financial Management in the Hospitality Industry

Quantitative techniques of control and analysis, including computer applications in all aspects of the hospitality industry are studied. Such diverse areas as inventory, restaurant and retail point-of-sale, rooms marketing and cash management are included in a comprehensive study of the con-

cepts, strategies, processes, hardware and software by which operational performance is improved.

## HRTM3209

3 Credits

### Human Resource Management

A comprehensive approach to the management of human resources and supervision in hospitality organizations. The course includes techniques of labor planning, job specifying, scheduling, dealing with organized labor, training, supervising, motivating and improving productivity.

## HRTM4109

3 Credits

### Hospitality Operations Tactics and Strategy

The objective of this assimilative course is to provide juniors and seniors with a reflective and action-oriented experience in the hospitality/strategic-management process. In addition to traditional classroom activities, students will work with a virtual learning technology known as HOTS (Hotel Operations Tactics and Strategy). It is a unique tool for management training and development which is currently utilized by many major hospitality corporations. Students will simulate the operation of a full-service hotel in a variety of competitive environments. Through the simulation of realistic business situations, HOTS provides learning with an opportunity to analyze the cause and effect of decisions in the areas of business planning, operations, finance and revenue management, cost control, sales and marketing, customer service and human resources.

Fee

## HRTM4114

3 Credits

### Research in Ethical Management

This research-based course will focus on managing in the hospitality and tourism fields in an ethical manner. The course will begin with the fundamentals of research writing and the peer-review process. Several experts have been enlisted to create an exceptional learning experience in topical areas for students about to embark on their hospitality careers. For hotel and restaurant majors or permission of the instructor.

## HRTM4204

3 Credits

### Property Management

Hospitality facilities and systems are studied, stressing the roles of the manager in designing, maintaining and troubleshooting the operations. Competencies are developed in organization of property management records and routines; protection of public and employee comfort, health and safety; conservation of physical assets; productivity standards; training; specific building facilities; land-use planning; and engineering utility systems.

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## HRTM4280

3 Credits

### **Domestic and International Tourism**

Provides an overview of the theoretical and practical applications of travel and tourism as it relates to the domestic and international marketing and management.

### *Professional Development Series*

## HRTM1011

1 Credit

### **Work Term Experience I**

This summer work experience is the first of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

## HRTM1100

1 Credit

### **Professional Development Sequence (PDS) Work Experience 1**

The Professional Development Sequence (PDS) Work Experience 1 is an introductory, one-credit work experience course designed to provide students with the opportunity to apply theoretical, classroom course work to “real-life” hospitality employment. Regardless of whether students have worked previously in the industry or they are embarking on their first job, this experience requires them to complete 400 hours of employment and is typically completed during the summer. Students choose their own place of employment after being prepared during the spring-semester PDS class to construct a résumé, explore and develop interpersonal skills and practice interview techniques.

## HRTM1101

1 Credit

### **Career Orientation and Professional Development**

Provides an overview of various hospitality management career areas, defines professionalism and investigates each student’s specific interests in relation to these areas. This course includes a lab experience.

## HRTM1102

1 Credit

### **Professional Skill Development**

Students develop job-acquisition, problem-solving, interpersonal, stress and time-management skills and prepare for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.

## HRTM2011

1 Credit

### **Work Term Experience II**

This summer work experience is the second of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

## HRTM2100

1 Credit

### **Professional Development Sequence (PDS) Work Experience 2**

The Professional Development Sequence (PDS) Work Experience 2 is an intermediate, one-credit work experience course designed to build on students’ previous work experiences and accumulating hospitality-related course work. Students will complete the same model of 400 hours of employment at locations of their choosing, with an emphasis placed on not necessarily returning to both the previous employers and position. Instead, at this level, students are asked to seek positions that require them to move toward managerial responsibilities. Students are asked to examine the management and leadership styles demonstrated by employers and compare and contrast some of the theoretical models of management and leadership that were introduced in the classroom. Students prepare for this experience by undertaking PDS classes in both the fall and spring semesters, which focus on leadership and legal issues relative to the hospitality industry.

## HRTM2103

2 Credits

### **Management Values and Professional Standards**

Focuses on management and attitudes consistent with professional standards and the manager’s role in the business and community. This course includes a lab experience.

## HRTM2104

2 Credits

### **The Hospitality Manager and Law**

Students examine various legal considerations in a professional hospitality management environment and prepare for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.

## HRTM2500

0 Credits

### **Professional Development Sequence (PDS) Lab**

Provides specific time slots for Professional Development Sequence (PDS) activities concurrent with formal classes. Students may register for this class multiple times throughout their education at FDU. Corequisites: HRTM1101 Career Orientation and Professional Development, HRTM1102 Professional Skill Development, HRTM2103 Management Values and Professional Standards, HRTM2104 The Hospitality Manager and Law, HRTM3105 Managerial Challenges in the Workplace, HRTM3106 The Manager and the Group: Work Experience, HRTM4107 Concepts in Transportation and Travel and HRTM4108 Global Issues in Hospitality Management.

## HRTM3011

1 Credit

### **Work Term Experience III**

This summer work experience is the last of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

## HRTM3100

1 Credit

### **Professional Development Sequence (PDS) Work Experience 3**

The Professional Development Sequence (PDS) Work Experience 3 is an advanced, one-credit work experience course also designed to build on students’ previous work experiences and accumulating hospitality-related course work. Students will complete the same model of 400 hours of employment at locations of their choosing, with an emphasis placed on not necessarily returning to both the previous employers and position. At this level, students are fully immersed in hospitality course work, and are beginning to consider their specific area of career interests as they begin their transition toward graduation or graduate school. The students’ interpersonal skills have been refined and course work has become more sophisticated, preparing them to think about advanced issues such as total quality management (TQM), cultural diversity in the workplace, leadership paradigms, etc. Students prepare for this experience by undertaking PDS classes in both the fall and spring semesters, which focus on business issues relative to the hospitality industry.

## HRTM3101

2 Credits

### **Professional Development Sequence (PDS) Work Experience in China**

This two-credit, work-experience course is designed to build on students’ previous work experience and accumulating hospitality-based course work. Students will complete 800 hours of employment with the Intercontinental Hotel in Chengdu, China.

## HRTM3105

1 Credit

### **Managerial Challenges in the Workplace**

Focuses on professionalism applied to the workplace, emphasizing contemporary issues, challenges and opportunities. This course includes a lab experience.

## HRTM3106

1 Credit

### **The Manager and the Group: Work Experience**

Focuses on professionalism with an emphasis on leadership development and preparation for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.

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## HRTM3253

3 Credits

### Guest Service Strategies

This course examines the role and responsibilities of hospitality employees in creating and sustaining quality guest relationships. Commonly used customer relationship management (CRM) software utilized in the industry will be taught as will specific guest-relations strategies.

## HRTM4107

2 Credits

### Concepts in Transportation and Travel

Various modes of transportation are studied with specific emphasis on their impact on travel and hospitality. Transportation and travel and their interactions with the hospitality industry are studied as models of the manager's role and responsibilities in a highly regulated society. This course includes a lab experience.

*Spring*

## HRTM4108

2 Credits

### Global Issues in Hospitality Management

Management approaches, techniques and strategies as practiced in the United States in specific hospitality areas such as human resources, systems organization and planning, control and analysis are examined and contrasted with their counterparts abroad. The course requires participation in class sessions and conferences abroad for which there is a surcharge. This course includes a lab experience.

*Spring*

## HRTM4112

3 Credits

### Hospitality in China

This course will examine the growth and context of hospitality, particularly restaurants and hotels in China. General concepts, techniques and strategies in the organization and management of operations such as business systems, standards, controls, marketing and product delivery will be explored. Emphasis is on quality assurance, customer satisfaction and process improvement.

## HRTM4200

2 Credits

### International Cultural Seminar

This course will explore intercultural communication and how cultural differences between selected countries in the European Union and the United States impact the hospitality and tourism industry relative to individual, team and organizational performance. Students are required to research and deliver a comprehensive term project on the role of intercultural communication in the United States including the influence of stereotyping, demography and globalization.

## Casino and Gaming Management

### HRTM2250

3 Credits

#### Casino Management

This course analyzes casino and gaming management as a discipline and introduces students to a more traditional theoretical approach of strategic market planning and then places the different aspects of casinos within that framework. Students will study the history of gaming and gaming development, casino organization and operation, the mathematics of casino games and casino management, as part of the broader study of hospitality management. This course first explores the casino's external environments and external environment influences and their impact on the consumers and the competition. The course then moves to the internal control factors of product, price, place and promotions, and concludes with a discussion of the future of gaming.

### HRTM3253

3 Credits

#### Casino Games Operations

This course explores the rules and operating concepts of casino slot machines and table games such as blackjack, baccarat, poker, craps and roulette. It also encompasses an in-depth examination of the various methods used to protect casino table games and slot machines. Methods used to eliminate or mitigate cheating along with various methods of detection and internal controls used by casinos are introduced.

### HRTM4252

3 Credits

#### Mathematics of Casino Games

This course will introduce the mathematical and logical framework of the casino operation. Skills will be developed to conduct analysis such as the techniques and methods utilized in computing the probabilities, expected outcomes and house percentages of casino games. Students will learn to compare and contrast casino game rules and payoff odds. Students will relate the casino operations' mathematics to the overall profitability of the casino and generate strategies to increase gaming revenue.

### HRTM4258

3 Credits

#### Gaming Regulations and Control

The course will examine various forms of casino gaming and the political/economic background of casino gaming and the effects of casino gaming on communities, lifestyles and value systems. The course explores gaming regulations and controls in the global marketplace. Students will compare, contrast and analyze gaming jurisdiction regulations and rules to determine the political, cultural and societal impact of casino gaming. Students will be exposed to the historical, legal and regulatory environment of casino gaming.

## HRTM4259

3 Credits

### Gaming Analytics

This course on casino-gaming analysis will explore different analytical techniques and methods utilized by casino operators to evaluate guest behaviors and determine strategies to maximize efficiency and consumer loyalty. Students will examine common analytical techniques and key metric indicators utilized in making decisions about strategic initiatives employed by global gaming organizations.

## Food-service Management

### HRTM2212

3 Credits

#### Dining Service and Etiquette

This course familiarizes students with service and dining skills needed in a dining room and in other hospitality sites. Areas covered include service techniques for food and beverage, including French, Russian, Butler and American. Also what should a server know and what should a diner expect? Topics included are table setting, personal dining etiquette and business social skills.

*Fall, Spring*

### HRTM2250

3 Credits

#### Introduction to the Study of Wine

This course provides an overview of various topics related to wine. These include: history, production, service and distribution. Open to nonhospitality majors.

### HRTM2255

3 Credits

#### Nutrition for Hospitality Managers

Provides an overview of nutrition principles for hospitality managers and other individuals working in a service environment.

*Fall, Spring*

### HRTM2260

3 Credits

#### Events Planning

A systematic approach to the process of planning and executing a corporate or social event in a hotel environment. It includes a comprehensive understanding of the event from point of sale through its conclusion.

### HRTM5205

3 Credits

#### Food and Beverage Management

The course emphasizes the food and beverage concepts essential to all hospitality managers. Areas such as menu planning, beverage operations, food-production systems, food-service and delivery systems are studied. Prerequisites: HRTM2211 Accounting for Hospitality Managers and MIS1155 Introduction to Computers



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or MIS1045 Information Technology for Business.

## HRTM5206 3 Credits

### **Spirits and Beverage Management**

This course is intended to provide students with product knowledge on alcoholic beverages. The course will also provide current information regarding management skills required of a bar/beverage manager.

*Fee*

## **Lodging Management**

## HRTM1501 3 Credits

### **Effective Business Communication**

This course uses a workshop approach to focus on clear and concise writing, vocabulary and oral communication for international students looking to do business with multinational organizations. The course will introduce the basics of good business writing, including papers using the APA format, documenting sources and internet usage, as well as the culture and etiquette of business. (Equivalent to ESL1501 Effective Business Communication.)

*Fall, Spring*

## HRTM2209 3 Credits

### **Conflict Resolution and Collaborative Negotiation**

This experiential course helps participants develop skills in collaborative negotiation and conflict resolution in hospitality settings. The course considers how differences such as world view, class, power, culture, race and gender can affect the conflict resolution and negotiation process.

*Fee*

## HRTM2213 3 Credits

### **International Human Resources**

This course discusses expatriate behavior, culture of the host countries and repatriation to parent countries and provides a global experience for the student considering accepting an assignment with a multinational corporation.

*Fall, Spring*

## HRTM2221 3 Credits

### **Rooms Division Management**

Front-office relations to other departments, functions of the front office, sales and marketing in the front office, reservations, the guest cycle and reports and statistics unique to the front office. Discussion of the functions of housekeeping, the responsibilities of the housekeeper and manager, systems for cleaning rooms and public areas and housekeeping relations with other departments.

## HRTM2234 3 Credits

### **The Professional Meeting Market**

This survey course provides a comprehensive overview of the meeting-planning business, including the corporate, incentive, association, convention and trade show areas. Topics cover program development and budgeting, negotiations and contractual issues, participant profiling, site selection, the planning process, menu planning, technology options, safety and security, cultural protocol of international meetings and the use of outside vendors. This course also looks at meeting planning through the eyes of the end-user as well as the supplier, their relationship to each other and the needs of each to quantify results and manage resources to ensure mutual success. Guest speakers, handouts and interactive discussions of current meeting trends provide each student with an understanding of meeting planning as a business as well as a possible career choice.

*Spring*

## HRTM2236 3 Credits

### **Cultural Tourism of Latin America and Cuba**

This course will explore the region of Latin America with a focus on Cuba, in the role that cultural tourism plays as a pathway for foreign recreation, local entrepreneurship and political stability. The class will analyze the encounter of foreign visitors with local populations, ecology and the cultural imaginaries and identities born of those interactions. Specifically, this course examines the way in which culture is crafted, performed and marketed to visitors in keeping with (and, at times, in opposition to) their own culturally shaped notions of authenticity, purity, preservation and desire. It will also question the reliance of particular modes of cultural and recreational tourism (including architectural, music and dance tourism and sex tourism) as viable/ethical forms of sustainable development. Finally, students will reflect on tourism's conflicting role as a force for political and economic advancement on the one hand and retrogression on the other (or both).

## HRTM3004 3 Credits

### **Introduction to Franchising**

Franchising in the hospitality industry is designed to provide students with an understanding and appreciation of the role that franchising plays in the hospitality industry. The course will review the franchising model from the perspective of both the franchisor and franchisee, highlighting the importance of the symbiotic relationship. Focus will be placed on the selection process, the contract process and the roles and responsibilities of each of the parties in the relationship. On a macro level, the impact of franchising on the overall economy also will be discussed.

## HRTM5207 3 Credits

### **Lodging Operations and Revenue Management**

Techniques and strategies in the organization and management of hospitality systems such as business, finance, marketing, reservations, food service, guest service, supply and control are studied. The course emphasizes quality assurance, guest satisfaction and process improvement.

## HRTM5234 3 Credits

### **Social Media in the Hospitality Industry**

This course is designed to teach students the conceptual foundation and practical techniques necessary for creating a comprehensive and effective social media marketing plan after a detailed study of the social media marketing, goals and strategies. In addition, extensive consideration will be given to monitoring and measuring the progress made in reaching social media goals. The most useful quantitative and qualitative social media measurements are introduced and explained in detail.

## HRTM5250 3 Credits

### **Club Management**

This course introduces the hospitality student to the unique world of private club management. Emphasis is given to the analysis of skills required in managing different club operational areas such as human resources, food and beverage, information systems and excellence in service.

*Fall, Spring*

## HRTM5252 3 Credits

### **Spanish for Hospitality Managers — Study Abroad**

This course provides hospitality students an opportunity to enhance their Spanish language skills. Classes will be held in a practical setting with major emphasis on learning terms and Spanish jargon utilized in hospitality businesses and necessary for the interaction with Spanish-speaking employees. Prerequisites: SPAN2103, SPAN2104 Intermediate Spanish I and II.

*Spring*

*Fee*

## HRTM5555 3 Credits

### **Meeting and Conference Planning Management**

This course provides an overview of the meeting and conference planning segments of the hospitality industry. Specific emphasis is placed on the selling, planning, organizing and operating of meeting and conference facilities from a management perspective.

# Humanities

Anthony J. Petrocelli College of Continuing Studies  
 Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

**HRTM4101**

**3 Credits**

**Sustainable Tourism Development**

The course will examine the role international organizations such as the International Monetary Fund (IMF) and the World Bank play in the development of tourism in developing countries as a source of foreign exchange. The impact of mass tourism in a sustainable manner will also be studied. A trip to Costa Rica will introduce a model for sustainable tourism development in action.

*Fee*

**HRTM4110**

**3 Credits**

**New Venture Management in the Hospitality Industry**

The course is designed to encourage students to net upon their entrepreneurial ideas in the hospitality business. The course will teach the fundamental concepts of how to start and run a successful hospitality business. Individuals/learners will develop an understanding of business plans, budget analysis, legal review and how to evaluate new ventures. Prerequisites: Hospitality Core Courses.

**HRTM4111**

**3 Credits**

**Global Issues and Tourism**

This course will examine the impact of globalization on the practice of tourism and its development. The impact globalization has on human resources, the sustainability of tourism development, the utilization of technology for tourism operations and the impact on the environment.

**HRTM4112**

**3 Credits**

**Topics in Quality and Revenue Management**

This course explores the theories and best practices in quality and revenue management with an emphasis on Cendant Hotel Division constructs. Students will be exposed to guest speakers and panel discussions featuring subject-matter experts from across the span of Cendant Hotel Division. Revenue management is a vital process and it often determines the success or failure of a hospitality/service enterprise. Cendant Hotel Division revenue management schema will be identified. Students will gain a practical understanding of pricing/capacity utilization and RevPar optimization. Market-performance measurement tools such as the STAR and Host reports will be reviewed and linked to Cendant Hotel Division contexts. Total quality management and continuous improvement are essential ingredients in successful hospitality enterprises. To this extent, the course will examine theories and applications across the contexts and brands of Cendant Hotel Division.

**HRTM4113**

**3 Credits**

**Topics in Diversity**

This course explores the theories and best practices in diversity management with an emphasis on Cendant Hotel Division constructs. Students will be exposed to guest speakers and panel discussions featuring subject-matter experts from across the span of Cendant Hotel Division. For Cendant employees only.

**HRTM4227**

**3 Credits**

**Seminar in Lodging Management**

Current issues in lodging management are examined.

# Humanities

**HUMN2015**

**1 Credit**

**Spanish Immersion Class**

Come and live the best Spanish learning experience. Learn fast, speak now, *hable ya!* Learning Spanish or expanding current language skills can open many doors for students, whether they are doing business internationally, they want to improve customer service in their businesses or even if they are just traveling to another country. In fact, knowing a few phrases in the local language can improve one's travel experience immeasurably. Communicate with fellow students and instructors easily, and, most important, perform one's skills with native speakers of the language through hands-on practice. Learn Spanish in a fun setting. The course focuses on experiencing the Spanish language through fun communication strategies, amusing discussions, vocabulary that people will use, listening and real social situations.

**HUMN2016**

**3 Credits**

**Introduction to Spanish Literature and Rhetoric**

Introduction to Spanish literature; examination of current critical and theoretical approaches to Cervantes and other classics; introduction to the use of persuasive Spanish; continued studies in Spanish grammar; composition, syntax and rhetoric for academic purposes, with literary illustration. Prerequisite: intermediate-level knowledge of Spanish.

**HUMN2081**

**3 Credits**

**History on Film**

Historical events and personalities as seen through the filter of the film industry; issues of historical accuracy and artistic license; political, social and cultural factors; films include both current and past productions. The course may be repeated for credit. (Equivalent to ART2081 History on Film.)

**HUMN2205**

**3 Credits**

**World Food and Culture**

This course is a study of international foods and cultures and their influence in the humanities and social sciences. Through the use of text, research articles, films and various media, students will examine food patterns of the world from a cultural, geographical, anthropological and historical perspective as it relates to the evolution and advancement of the human condition.

**HUMN2211**

**3 Credits**

**Technology and Literature**

The image of the scientist in literature: hero, villain and madman; the scientist/engineer as creative writer; scientific writing as objective and subjective expression.

**HUMN2215**

**3 Credits**

**Understanding Human Diversity**

Americans live in an increasingly diverse society within a global economy. Understanding and valuing the diversity of others will contribute to the student's strategies for successfully dealing with diversity in personal and social contexts. The course will focus on issues of class, ethnicity and gender in a global society. *Fall, Spring*

**HUMN2216**

**3 Credits**

**American Culture Through Film**

An in-depth look at the images of social life and social relationships contained in popular movies. Film will be used to illuminate the contradictions among issues of social stratification (class, race, equality, wealth, gender, values, etc.) in our pursuit of the American dream. *Fall, Spring*

**HUMN2221**

**3 Credits**

**The Travel Writer:**

**From Herodotus to Theroux**

Travel writing as unique literary expression; the travel writer as observer and cultural influence. Readings from historical sources and from more modern travelers such as Cooper, Twain, Orwell, Waugh, Hemingway and Steinbeck. *Fall, Spring, Summer*

**HUMN2241**

**3 Credits**

**Greek Civilization**

This course will explore the history and culture of Greece during the fifth century BC. Topics will include Greek constitutional history (especially the development of Greek democracy), the Persian Wars, the rise of the Athenian Empire and the Peloponnesian Wars.

# Humanities

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

## HUMN2250

3 Credits

### History of Global Warfare

In this course students will examine the changing nature of war in western civilization and its relationship to the development of various cultures and societies. Rather than focus simply on winners and losers, the focus will be on the relationship between wars and the culture, laws, governments and societies of those involved and affected.

## HUMN2252

3 Credits

### How Soccer Explains the World: Sports, Nationalism and Globalization in the Modern World

The global power of soccer might be a little hard for Americans — living in a country that often views the game with the same skepticism used for the metric system — to grasp fully. But in Europe, South America and elsewhere, soccer is not merely a pastime but often an expression of the social, economic, political and racial composition of the communities that host both the teams and their throngs of enthusiastic fans. Yet some say the United States is the most sports-crazy society in the world, with nearly every sport ever invented being played here. What do sports say about societies and cultures, about globalization? Soccer is not the only sport with such powerful impact in the modern world, and the class will explore others as well, especially baseball.

## HUMN2281

3 Credits

### Christianity: Foundation and Early History

The course will trace the foundation of Christianity and its growth through the reign of Constantine (306–337 A.D.). Topics include origins of the religion within the Jewish tradition, the background of the Roman Empire, the early Christian/Pagan Dialogue and persecutions and its evolution into a state religion.

## HUMN2310

3 Credits

### War on Film

War challenges the most fondly held convictions and beliefs and provides the setting and subject matter for an examination of the parameters of human behavior. The course will present a number of the best war films from different periods and different nations. Films discussed will include “All Quiet on the Western Front” (1930), “Sergeant York” (1941), “The Sands of Iwo Jima” (1949), “The Bridge on the River Kwai” (1957), “Paths of Glory” (1957), “Where Eagles Dare” (1968), “M\*A\*S\*H\*” (1970), “Apocalypse Now” (1979), “Saving Private Ryan” (1998), “Three Kings” (1999), “Lord of War” (2005) and “The Hurt Locker” (2009).

## HUMN2311

3 Credits

### Sports on Film

Sports, whether on an organized and professional level, the scholastic and intercollegiate levels, on a Little League field — or disorganized in a playground — has become the subject of cultural inquiry, exploration and criticism. Some of the more creative and interesting examinations of the meaning of sports in people’s lives have been on film. Sports as a builder or revealer of character; sports as an obsession; sports as a metaphor for political, economic, ethnic and racial conflict or war itself; sports as an agent of corruption — all these aspects and more have provided subject matter for great sports films. This course will examine films like “Knute Rockne — All American” (1940), “The Pride of the Yankees” (1942), “Body and Soul” (1947), “Jim Thorpe — All American” (1951), “Brian’s Song” (1971), “Rocky” (1976), “The Natural” (1984), “Hoosiers” (1986), “A League of Their Own” (1992), “When We Were Kings” (1996), “Miracle” (2004), “Cinderella Man” (2005), “The Express” (2008) and others in light of these considerations.

## HUMN2312

3 Credits

### Culture and Conflict in the Middle East

Cultural realities in the contemporary Middle East; religion, social, political and economic determinants in Middle Eastern culture; revolution and change; the Arab Spring, clash of cultures and sects; the Arab world and modernity.

## HUMN3000

3 Credits

### Dealing with Diversity

This course will explore demographic stereotypes among various American cultural groups. Students will be challenged to think through the various definitions of feminism, race, multiculturalism, social class, gender issues and diversity from a cross-cultural perspective. The class also will reflect on the significance of these topics and how they have shaped the lives of today’s American groups. Students will be challenged to think about their personal experiences in reference to course topics and gain a better understanding of self. Prerequisites: ENGL1101 English Composition I and ENGL1102 English Composition II. Only for University partnership students.

## HUMN3002

3 Credits

### Table Talk: The Literature of Food

This course will examine the writings of various chefs, food-industry gurus and those whose lives have an effect on the restaurants, menus and food environs. The purpose is to reexamine what influenced these notable chefs and food-industry personnel as well as the outcomes of their journey in the food industry.

## HUMN3004

3 Credits

### Table Talk: Literature of Food II

This course will examine the writings of various chefs, food-industry gurus and those whose lives have an effect on the restaurants, menus and food environs. The purpose is to examine what influenced these notable chefs and food-industry personnel as well as the outcomes of their journey in the food industry. Readings will vary. Course topics vary each offering; may be repeated for credit. Expands on topics found in HUMN3002 Table Talk: The Literature of Food.

## HUMN3005

3 Credits

### The Collapse of Cities, Empires and Great Civilizations

From the destruction of Pompeii in 79 AD to hurricanes and tsunamis in the modern world, this course explores how environmental, economic and social disasters contribute to the decline of great civilizations. The class will investigate the choices that civilizations face when catastrophes strike, and how global communities have dealt with disasters to endure through the ages.

## HUMN3008

3 Credits

### Prejudice, Bigotry and Hate

This course will examine the politics, religion, immigration, fear and individual experiences related to violence in America. It will include an opportunity to deepen the understanding of various individual beliefs. A history of hate leading to violence, to current activities of the Islamic State of Iraq (ISIL) will be researched and investigated. With a clear perspective of religion, immigration, politics and terrorism, an analysis will be conducted of the current threat of violence in America.

## HUMN3030

3 Credits

### Life and Times of Outstanding Americans

This course will examine the roles of various individuals in American society, their contributions to history, culture and heritage. Such individuals include, but are not limited to, Susan B. Anthony, Margaret Mead, Louis Armstrong, Steve Jobs, Bill Gates, Oprah Winfrey and others.

## HUMN3040

3 Credits

### Icons and Their Influence on Culture

This course will examine various icons and their effect on music, movies and popular culture in modern times. Singers such as Frank Sinatra and Judy Garland, actors such as John Wayne and Humphrey Bogart, musicians such as Duke Ellington and Louis Armstrong and others will be examined. Note: For adult learners (SUCCESS).

# Information Systems

Anthony J. Petrocelli College of Continuing Studies  
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## HUMN3218

3 Credits

### Current Ethical Issues

This course will address a diverse array of ethical and moral issues in today's society. The class will discuss contemporary readings and current media. Practical application will involve group projects and review of current literature. For adult learners.

## HUMN3221

3 Credits

### Coming of Age in America

This course is a sociocultural examination of the teenager as expressed in American film. The course follows the development of the concept of teenagers in American society over the past five decades in order to gain an understanding of the role of teenagers in influencing and directing social change.

## HUMN3224

3 Credits

### Literature and Pop Culture

This course will utilize contemporary readings that reflect the various genre of the time. Students will engage in participatory activities focused on the selected readings. The class will explore American literature of the new millennium in an effort to "take the pulse" of what's going on in the most contemporary literature. Readings will vary. Prerequisite: ENGL1101 English Composition I.

## HUMN3225

3 Credits

### Literature and Pop Culture II

This course will utilize contemporary readings that reflect the various genre of the time. Students will engage in participatory activities focused on the selected readings. The class will explore American literature of the new millennium in an effort to "take the pulse" of what's going on in the most contemporary literature. Readings will vary. Course topics vary each offering; may be repeated for credit.

## HUMN3310

3 Credits

### Cross-cultural Literacy

As anyone in business recognizes, shared knowledge — what E.D. Hirsch has called "cultural literacy" — is indeed essential to success in the business world. It's the foundation upon which relationships and connections are built. It's the foundation upon which people communicate with each other — not only in the business world but in all of their daily interactions. The goal of this course is to provide a foundation in "cultural literacy" or, as Hirsch's well-known *Dictionary of Cultural Literacy* suggests, "What every American needs to know." At the same time, however, the class will interrogate what defines "cultural literacy." In an America that is defined by

diversity and in a world that is increasingly global, who decides what constitutes "cultural literacy?" And isn't it really "cross-cultural literacy" that is called for in today's world? If so, how should "cross-cultural literacy" be defined? This course will explore these questions and help build the class's own *Dictionary of Cultural Literacy*.

## HUMN3540

3 Credits

### Portraits of Power: Leaders on Film

The presentation of leadership in creative film; the pursuit of power and influence and the aftermath; the importance of personality, teamwork, alliances and compromise; examples of successful and failed attempts at effective leadership, illustrated by fictional and historical figures. Films include "Mr. Smith Goes to Washington" (1939), "Fort Apache" (1948), "All the King's Men" (1950), "Lawrence of Arabia" (1962), "The Best Man" (1964), "Norma Rae" (1979), "Gandhi" (1982), "Braveheart" (1995), "Elizabeth" (1998) and "The Iron Lady" (2011). These and other films may be viewed only in part to illustrate the pertinent leadership qualities or shortcomings.

## HUMN4210

3 Credits

### Violence and Culture: World of Entertainment, Film, TV and Video Games

This is a thought-provoking look at the complexity and contradiction involved in violence within society through an examination of the impact of the film, television and video game industries on violence in society. This course will examine the industry — from cartoons to video games.

## HUMN4590

3 Credits

### Religion and Terrorism

Religion has a significant impact on cultures and even governments. Historically, there have been periods of time when religion has been the basis of conflict and wars. This course will investigate how religion has been linked to terrorism. (Equivalent to PADM4590 Religion and Terrorism.)

# Information Systems

## MIS2101

3 Credits

### Management Information System

Course is an overview of information systems specifically addressing their management and the current technology. The evolving role of information systems and related technology within a business organization are studied. The learning process is enhanced by using spread-

sheet and database management software on personal computers for business applications.

## MIS2110

3 Credits

### New Perspectives on the Internet

This course offers challenging projects and key reinforcement exercises. This is a "browser-generic" full-semester course on the internet that takes a step-by-step approach to basics through more advanced internet concepts. New interior design helps students easily identify the case and the steps necessary to complete the course effectively. It offers coverage of the different email packages including Netscape Messenger, Microsoft Outlook Express, Hotmail and Eudora. Designed for adult learners who want to get more "user friendly" with the internet.

## MIS2121

3 Credits

### Introduction to Adobe Photoshop®

The course covers the introductory to intermediate aspects of the powerful photo-restoration and creation software. This application is used in graphical and multimedia areas of print and video. The areas covered in the course include color techniques, working with layers, special effects and filters, creating web documents, manipulating colors and creating clipping groups. Hands-on laboratories offered online will be utilized to teach these techniques.  
*Fall, Spring*

## MIS2123

3 Credits

### Office®: Introductory Concepts

This course offers a step-by-step approach to learning the fundamentals of Microsoft Office®. Contains 15 projects on computer concepts, Windows®, Word®, Excel®, Access®, PowerPoint®, Outlook® and Office Integration®. Includes sufficient material for a first course on Office® applications. Projects and exercises take full advantage of the new features of Office®. Introduction to computers section has been revised to start students with the most up-to-date introduction to computer concepts.

## MIS2131

3 Credits

### Introduction to Final Cut® Pro

This course is designed to work with the Apple system. Final Cut Pro® is the predominant video-editing system for professional editors. The software covers areas including video intake, video cutting, video effects, video compression and video output. The class will utilize labs and video-creation techniques used in the professional industry. Layering, cutting and color manipulation will be covered.  
*Fall, Spring*

# Information Systems

Anthony J. Petrocelli College of Continuing Studies  
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## MIS2141

3 Credits

### Advanced Adobe Photoshop®

Advanced Adobe Photoshop® creative workshop not only shows the latest and more advanced features of the software, but it also gives the student practical applications of the features, including new creative options to produce the highest-quality image for print, the web and anywhere else. Prerequisite: MIS2121 Introduction to Adobe Photoshop®.

## MIS2151

3 Credits

### Electronic Commerce and Beyond: Special Topics for a Global Marketplace

This course addresses the use of e-commerce technologies for competitive advantage within a global market economy. Emphasis is placed on the ramifications of the use of a business tool that does away with the old notions of time and space. Interaction of students with international companies and business professionals in other countries through the virtual environment will give them the advantage of a real-world view of a globally-connected economy and provide concrete examples of how business can take advantage of this web of connections for substantial growth, progress, success and profit. Topics to be discussed include e-commerce basics and components; e-commerce strategy; e-commerce web-presence development; online marketing; online security; online legalities.

*Fall, Spring*

## MIS2161

3 Credits

### Introduction to Adobe Premiere® Pro

This course offers complete coverage of basic to advanced Premiere skills such as animating clips and using advanced video-effect techniques to create polished, professional-looking videos. This course includes video effects, animation, editing and more. A full-color Director's Cut sidebar teaches students about editing techniques used in classic films like "The Godfather" and "The Birds." Numerous end-of-unit exercises and projects throughout the text provide not only additional opportunities for practice and reinforcement but also a way to build a student's portfolio.

## MIS2171

3 Credits

### Creating E-portfolios

Learn to increase efficiency in the office, classroom, organization and beyond in this course designed to utilize the latest in production technology. Get started with the latest technological advancements in multimedia and produce documents and outputs designed for the web and more. Organize work and assignments in media-rich PDF Portfolios. Improve collaboration and security using powerful commenting tools and password protection. Easily bring together docu-

ments, spreadsheets, presentations, webpages, videos, photos and more in a polished PDF file or PDF Portfolio. Prerequisite: MIS1135 Introduction to Computers or equivalent.

## MIS2181

3 Credits

### Global Information Technology

This course will review and discuss information-management strategies as they pertain to global markets and operations. Operation-technology requirements in various global locations will be explored. This involves an external and internal information analysis, which would explore technology concepts, human resource requirements and the integration of all components to achieve a successful outcome.

## MIS2191

3 Credits

### Digital Design for Business

The ever-increasing demand for high-quality documents in print and on the internet requires a new set of graphics related to technological skills. The resulting computer-generated images should enhance a document's appearance and reinforce its overall message to the audience. In this course, students will study the history of digital design, learn the basic design principles of contrast, repetition, alignment and proximity, and apply these principles to various print, presentation and web documents.

## MIS2245

3 Credits

### Current Technology Issues

This course explores a variety of issues involving the social, environmental, economic and political impact of technology. Specific content may vary from semester to semester.

## MIS3121

3 Credits

### Introduction to Adobe Illustrator®

This course, which is part of the design professional series, teaches students the basic through more advanced features of Adobe Illustrator® including preparing illustrations for print production. Dual-platform instruction for both Mac and PC. Includes rich end-of-chapter materials — meant to engage students and give them the chance to practice and review their work.

## MIS3125

3 Credits

### Adobe Photoshop® Forensics

Thanks to television's crime-scene investigation shows, forensic technology has entered popular culture. Combining puzzle solving and a dramatic story line, these shows fascinate audiences as high-tech procedures uncover the truths hidden in seemingly insignificant clues. What many people may not realize is that forensic teams also use items they probably have in their own homes — digital cameras, computers and Adobe

Photoshop® image-editing software. This course shows students how Photoshop® is used to create many types of fakery and fraud, including scientific, counterfeiting, art, journalism and political propaganda. Students will discover that with some basic training in Photoshop's manipulation capabilities in a critical eye, they, too, can see through photographic hoaxes. Follow along as each chapter explores a different genre of real-life frauds — both historical and current — and explains how the fakery was or could be detected. A featured case file in each chapter carefully deconstructs a faked image so students can see the methods and processes followed by the image-editing professionals who solve — and the perpetrators who commit — a variety of crimes. Even if students have never considered altering an image or becoming a crime-scene investigator, they will enjoy discovering the "how" and "why" behind both famous and common acts of image fraud.

## MIS3125

3 Credits

### Adobe Illustrator®: Advanced Artistic Design

The course is designed to take the basic features of Adobe Illustrator® and bring them to a more advanced area. Areas included are: using the new symbol feature to create and update repeating elements quickly, transforming images and designing objects with the improved liquify tool, mastering Adobe Illustrator® quickly and easily through example projects and applying the great variety of Illustrator features to the students' work.

## MIS3131

3 Credits

### Adobe Web Collection

Part of a Design Professional Series, this course offers basic to more advanced skills in Adobe Photoshop® 7.0, LiveMotion® 2.0 and GoLive® 6.0, making it a great reference for the future. Coverage includes image editing, animation and website design and development as well as the integration of all three applications. Full-color coverage of basic through more advanced features makes it a great reference for future use. Dual-platform instruction for both Mac and PC. Clear focus on how multimedia is taught in the classroom. Provides in-depth explanation behind the skills — answers the "why."

## MIS3141

3 Credits

### Office®: Advanced Concepts

Microsoft Office® advanced concepts and techniques is designed for a second course on Office®. Unique project-based approach provides a practical context for learning skills. Detailed step-by-step, screen-by-screen instructions ensure students stay on track. "Learn it Online" exercises reinforce Office® concepts. Prerequisite: MIS2125 Office®: Introductory Concepts.

# Information Technology • Interdisciplinary Studies

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

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## MIS3142

3 Credits

### Information Security

The course introduces the concepts of information security, the security assessment and the implementation of security via minimal technical terminology and acronyms to appeal to a broader audience. It includes real-world examples and case studies for illustrations. Hands-on projects help to shape the scope of information security, and its application in the business world today.

## MIS3151

3 Credits

### Office®: Post-advanced Concepts

This course covers more advanced Microsoft Office® functionality for skilled users including working with master documents, working with macros and Visual Basic for applications, formula auditing, date validation, complex problem solving, pivot charts, importing data, administering a database system and creating self-running presentations. Designed to prepare the student for MOUS Certification. Prerequisite: MIS3141 Office®: Advanced Concepts.

## MIS3161

3 Credits

### Multimedia for the Web

This comprehensive course covers introductory multimedia concepts. It gives students a solid foundation in the planning process and design considerations, while covering industry standard applications and emerging technologies. It is designed to cover both theory and practical applications for web design, implementation and creation. FDU NetID (formerly Webmail) account required.

## MIS3165

3 Credits

### Principles of Web Design

The course will help students build their HTML (Hypertext Markup Language) skills to enhance webpages and gain a critical eye for evaluating website design. Updated for the latest web-design technologies, this course has increased coverage of XHTML (Extensible Hypertext Markup Language) and Cascading Style Sheets to keep the curriculum up to date. Screenshots and browser information reflect the latest, most current web trends and technology. This class will provide the solid foundation needed to help students build successful websites.

## MIS3171

3 Credits

### Database Security and Auditing

This course is separated into three sections: security, auditing and implementation. Students will fully understand how to implement database security on modern business databases using practical scenarios and step-by-step examples throughout the course. Each topic provides

students with exercises and hands-on projects to reinforce and showcase the topics learned. The final project allows the students to apply their knowledge in a presentation of four real-world cases using security and auditing.

## Information Technology

## INFO3850

3 Credits

### Applied Technology Practicum

Practical work placement of at least 150 hours in areas related to applied technology studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

## Interdisciplinary Studies

## INTER1007

3 Credits

### Gender and Identity

This course looks at gender studies from an interdisciplinary lens. Disciplines the class will uncover include, but are not limited to, science, art, literature, history and sociology. This course will take into consideration the meaning of identity and gender cross-culturally. It will also look at the decline of tradition and the continuum of sexuality.

## INTER1008

3 Credits

### Women and Leadership

This course is designed to empower women to create their own unique leadership style while recognizing challenges to women in leadership positions and developing strategies to overcome or circumvent them.

## INTER1009

3 Credits

### Perspectives on the Individual

The purpose of this course is to stimulate personal reflection by carefully examining situations in which individuals struggle to come to grips with some very important features of self — integrity, purity of heart, the ability to make choices. Individuals seek to find meaning in their consciousness of their own morality and to forge understandings of themselves through consciousness of their relation to nature. The effects of genetics, internal conflict, the totalitarian state and social prejudice pose challenges to the very survival of the individual self, but the challenges show individuals' courage to grow and to survive. Readings include Plato's *Apology*

and *Crito*, Gilgamesh, Freud's *Civilization and Its Discontents*, Atwood's *The Handmaid's Tale*, Wiesel's *Night* and Haley's *The Autobiography of Malcolm X*.

## INTER1015

3 Credits

### Women and Culture

This course looks at the role women play in cultures across the globe. This course investigates strategies women in different cultures employ to achieve political and social power. It also focuses on ideas of social justice by looking at and through the prism of gendered power dynamics at the intersection of race, class and sexuality.

## INTER1100

1 Credit

### Introduction to Interdisciplinary Studies I

In a world of specialists, why interdisciplinary studies? The definition, history, reasons for and significance of an interdisciplinary approach to knowledge, problem solving and decision making in a complex world.

## INTER1121

3 Credits

### The Image of the Artist in Film

Students will examine cinematic representations of artists. With their English professor, students will explore the filmmakers' narrative techniques, processes of biographical selection and employment of or arguments against stereotypes. With their psychology professor, students will investigate psychological theories relevant to the personalities and works of the artists. With both professors, students will confront the complexities of creative representation.  
*Fall, Spring*

## INTER2007

3 Credits

### Language, Logic and Culture Seminar

Expository writing and research methods correlated with an investigation of the interrelations of language, logic and culture, with readings in disciplines such as cultural studies, philosophy, linguistics and psychology. Prerequisite: 6 credits of any first-year English writing or composition course.

## INTER2008

3 Credits

### Literature and Culture Seminar

Expository writing and research methods correlated with an investigation of literature as an expression of culture, with readings in disciplines such as philosophy, history, anthropology and linguistics. Prerequisite: 6 credits of any first-year English writing or composition course.

# Interdisciplinary Studies

Anthony J. Petrocelli College of Continuing Studies  
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## INTER2012

3 Credits

### Evolutionary Psychology

What makes humans different from other animals? The class will explore topics such as self-awareness, culture, sociality, language, art, morality and cognition (knowing and thinking) from the perspectives of philosophy, literature, psychology and neuroscience. Prerequisite: INTER3001 Evolution, Ecology and Climate Change.

*Spring*

## INTER2013

3 Credits

### The American Experience

Citizens of the United States have had, since the country's beginning, a vision of the future which has in its various meanings come to be called The American Dream. This course explores this idea through four questions: Who is to be included in and who is excluded from the Dream? Can the individual's pursuit of the Dream be harmonized with the claims of the state? Does American art expose a melancholy tension in The American Dream, a tension between nostalgia for the past and a lust for innovation? Lastly, how do the aspects of the Dream that stress wealth, fame and power affect the polity and image of America in the world? Texts include the U.S. Constitution, Franklin's autobiography, selections from de Tocqueville's *Democracy in America*, *Narrative of the Life of Frederick Douglass: An American Slave*, *The Great Gatsby* and selections of the artwork from the Whitney Museum of American Art's collection, The American Effect.

## INTER2015

3 Credits

### Studies in Women's Leadership

This course explores women in power and highlights the strategies and the steps women must take to turn an interest in leadership positions. It also takes a look at current topics in leadership studies.

## INTER2016

3 Credits

### Gender and Diversity in the Workplace

This course discusses the concepts of gender, diversity and inclusion in the workplace. Inequality and subordination of roles are discussed throughout the semester.

## INTER2017

3 Credits

### Cultural Difference

As workers, people must deal with cultural difference and understanding. This course engages the differences and similarities of cultures across the globe. A cross-cultural purview of difference might challenge what students believe to be similar and different.

## INTER2019

3 Credits

### Art and Religion

An analysis of art and architecture from the world's major religions with an emphasis on the evolution and commonality of art and symbolism across time and belief.

## INTER2020

3 Credits

### Creativity and the Arts

A course on the psychology and philosophy of creativity, imagination and beauty in the arts and nature — their sources in the mind/brain and their meaning in people's lives.

## INTER2021

3 Credits

### Design and Culture Seminar I

Students will engage in studies of how design affects and reflects the culture of various societies, past and present. This course should be taken concurrently with INTER2023 Design and Culture Workshop I.

## INTER2022

3 Credits

### Design and Culture Seminar II

A continuation of INTER2021 Design and Culture Seminar I, this course should be taken concurrently with INTER2024 Design and Culture Workshop II.

## INTER2023

3 Credits

### Design and Culture Workshop I

To gain a fuller understanding of the elements of design employed in various cultures, students will create work in the style of the cultures examined in INTER2021 Design and Culture Seminar I. No prior knowledge of computer graphics is required. Instruction in using graphics software will be provided as necessary.

*Fall*

## INTER2024

3 Credits

### Design and Culture Workshop II

This course is a continuation of INTER2023 Design and Culture Workshop I and should be taken concurrently with INTER2022 Design and Culture Seminar II.

*Spring*

## INTER2025

3 Credits

### Music and Culture

This course will examine how music is an expression of culture. It will take a cross-cultural and cross-disciplinary approach to looking at music and cultures that thrive on music. No prior musical knowledge is necessary for this course. The course objective is to develop a competency in examining culture through the lens of music makers and production.

## INTER2026

3 Credits

### Drugs, Alcohol and Addiction

Anything that we tangibly or psychologically consume can affect and influence how we think, feel and behave. Legal or not, we alter our brains by what we choose to feed it. In our increasingly complex society a number of questions abound. It is now vitally important that we safeguard ourselves with at least a basic understanding of the psychoactive effects of drugs, nutrients and other potentially addictive vehicles. This course aims to do just that. Additionally, be prepared to be armed with the awareness, skills and know-how needed to make your brain and body function optimally. Learn the difference between a stimulant and a depressant. Discover why the line of food and drugs is becoming increasingly blurred. Find out how the contents of our physical and mental diets impact our understanding of the world. Explore this journey of hidden surprises. The wisdom offered in this course may one day save your life.

## INTER2041

3 Credits

### Technology and Literature

The image of the scientist in literature: hero, villain and madman; the scientist/engineer as creative writer; scientific writing as objective and subjective expression. (Equivalent to HUMN2211 Technology and Literature.)

*Fall, Spring*

## INTER2101

3 Credits

### Globalization: Nature, Causes and Consequences

What is globalization? Is it something new? Can it be defined? What exactly is happening in the world economy, culture, social relations and the environment? To understand these issues, the methods of the historian, artist, economist, sociologist and natural scientist will be employed.

*Fall*

## INTER2103

3 Credits

### Ethics, Human Rights and Globalization Seminar

Has globalization created the need for a global ethic? If so, what would such an ethic entail? Do rich individuals, communities, nations and/or multinational corporations have an obligation to help poor nations develop their economies? What, if anything, is wrong with large inequalities of income, wealth, property and power? Are Western nations adopting a form of "cultural imperialism" when they push their values on non-Western cultures? These questions, among others, are explored in the process of understanding and integrating the insights of important economists, philosophers, ethicists, business management experts, industrial psychologists and social and political theorists. Ancient and modern works will be used to

# Interdisciplinary Studies

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examine the nature of justice, freedom and equality in a global context.

## INTER2107

3 Credits

### Real World Statistics

This course will focus on developing the students' mathematical and statistical literacy as applied to real-world problems.

## INTER2121

3 Credits

### Objects of Desire in Film

Film as an artistic expression occupies a unique and privileged place among the arts of our time. If it is true, as it has so often been said, that rock and roll is the soundtrack of our lives, then films are the montage. This course will develop an elementary understanding of the language of film, allow the class to discuss selected current and classical films and pry out some of their significance to the times.

*Fall, Spring*

## INTER2125

3 Credits

### The Nature of Evil

An interdisciplinary course that helps students examine the complexities of "evil," a word we freely use without being able to pinpoint its meaning. By looking through various lenses — psychology, religion, literature, sociology — students will gain a more thoughtful appreciation of the definition of evil and perhaps a greater awareness of how humankind has had to confront evil throughout history.

*Fall*

## INTER2201

3 Credits

### Technology and Modern Medicine

An examination of the impact of technology on modern medicine; advances in diagnosis and treatment of disease; recent developments in fiber optics, computerized imaging, robotics, endoscopy; drug and radiation treatment; DNA and gene therapy; social and ethical considerations.

## INTER3001

3 Credits

### Evolution, Ecology and Climate Change

Nature and culture are opposites, or are they? Is the very concept of nature a cultural construct? Or isn't it? Is nature the same thing for the scientist, artist, poet, naturalist and philosopher? Do the world's religions understand nature in the same way?

## INTER3003

1 Credit

### Introduction to Interdisciplinary Studies II

A more detailed investigation than INTER1100 Introduction to Interdisciplinary Studies I of

ways of knowing, problem solving and decision making. An investigation of the subject matter and methods of the liberal arts, sciences and professions vital to life in a globalized world. Why should students care to know? Prerequisite: INTER1100 Introduction to Interdisciplinary Studies I.

## INTER3011

3 Credits

### Perspectives on Globalization

This online course will examine the historic, economic, political, technological, social and cultural dimensions of globalization. It will address questions such as: What is globalization? Is globalization something new? When did it start? To what extent have technology, free-market ideology, multinational corporations, state actions and human nature been instrumental in causing globalization? What are its effects on the distribution of power, income and wealth within and among nations, on the family, on workers and working conditions, on the environment, on local cultures, etc.? The responses to globalization also will be examined. Prerequisite: A course in economics or the permission of the instructor.

*Spring*

## INTER3015

3 Credits

### Legal Issues in Gender Studies

Gender equality provides an essential context and precondition for inclusive human development. This course delves into legal issues that encompass the terms gender and gendered space.

## INTER3016

3 Credits

### Women and Power

The dynamics of power are situational, cultural, developmental, political, economic and gendered. This course explore the dynamics of power in their many forms as they relate to women in leadership positions.

## INTER3017

3 Credits

### Leadership Development

This course is designed to uncover the specific strengths and qualities of the individual as they intersect and support attitudes of and roles in leadership positions. Students in this class will develop inventories of their strengths and weaknesses as they relate to their specific goals for a future leadership position.

## INTER3018

3 Credits

### Career Planning for Women in Leadership

The students in this course will engage with the myriad options available to them as women seeking a leadership position. The course in-

cludes a semester-long project that is designed to allow students to develop a personalized career plan, including benchmarks and evaluation tools to help the student measure, reflect upon and adapt to changing circumstances.

## INTER3041

3 Credits

### Technology and Values

The course will include, but not be limited to, a short history of industrial and postindustrial technology, technology as value neutral and value-laden, positive and negative ethical consequences of technology, ethical challenges created by technology (e.g., genetic engineering, cloning, artificial intelligence), ethics and responsibility in a high-tech age and humanism vs. science and technology. Ethical issues in a computerized society (e.g., privacy, private property, power concerns related to the global information highway, quality of work, work possibilities in a computer age and computers and the self) will also be examined. (Equivalent to PHIL3310 Human Perspectives in a Computerized Society. Credit cannot be given for both courses.)

*Fall, Spring*

## INTER3100

3 Credits

### Introduction to Organizational Development

Organizational Development (OD) is a field that provides skills to future leaders to create successful organizations and high-performing teams. Students will learn the history of OD, develop self-awareness and learn management skills.

## INTER4000

1 Credit

### Introduction to Interdisciplinary Research

This course explores the nature, methods and importance of interdisciplinary research. It will prepare students for their capstone experience. Prerequisites: completion of 75 credits and junior standing.

## INTER4001

3 Credits

### Senior Capstone Experience I

A required course for majors in interdisciplinary studies. Students, under the supervision of a faculty member, will prepare an individual or group project as a culmination of their studies.

## INTER4002

3 Credits

### Senior Capstone Experience II

An elective for students who wish to further develop and expand their work in INTER4001 Senior Capstone Experience I. Prerequisite: INTER4001 Senior Capstone Experience I.



# International Business • Law • Management

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## INTER4003

3 Credits

### Independent Study

Students will pursue an independent study project in their interdisciplinary field of concentration under the direction of a faculty member and with the approval of the program director. Prerequisite: completion of 90 or more credits. *Fall, Spring*

## INTER4004

3 Credits

### Independent Study

The student will complete the project started in INTER4003 Independent Study. Prerequisite: INTER4003 Independent Study. *Fall, Spring*

## INTER4005

3 Credits

### Selected Studies: School Field Work

This course provides the framework and parameters for those who have completed the Substitute Teacher Certificate Program in New Jersey.

## INTER4006, INTER4007

3 Credits Each

### Field Experience Practicum I, II

For students who have already completed their required undergraduate internships and elect to gain further practical experience. Under close supervision by the director or assistant director of interdisciplinary studies, the student will work no less than three hours and no more than 35 hours a week for the semester in an off-campus job in their chosen field. They will submit to their director a weekly summary of their work experience, which will be used to evaluate the students' performance during the "field experience." It is the director's prerogative, after an evaluation, to reject the proposed field practicum as lacking proper educational value or relevance. *Fall, Spring, Summer*

## INTER4015

3 Credits

### Generational Leadership

This course will explore the attitudes and avenues of leadership as they stand and as they changed as a matter of past and present influences exerted by both men and women. In order to prepare for the future as the next generation of women leaders, the students in this course will develop an important understanding of the influences of the leaders that have come before them.

## INTER4016

3 Credits

### Business Leadership

Business leadership is unlike other forms of leadership; therefore, the students in this class will concentrate on the specific qualities and

unique aspects of leadership in the business world. Students will also explore the parallels, overlap and divergences of alternative forms of both business and non-business leadership positions. Specific business leaders and their styles will be emphasized and studied.

## INTER4400

3 Credits

### Integrated Learning Project

After sessions on methodology, expectations and evaluation, students will write analytic reports that synthesize materials covered in courses completed toward a specialization and/or certificate, combining it with experiences gained outside of the classroom in an organizational setting. The objective of the report is for students to demonstrate a deepened and enhanced understanding of their chosen specialization. Note: B.A. in interdisciplinary studies only.

## INTER4438

3 Credits

### Ethics and Public Affairs

This course explores the nature and validity of moral arguments for contemporary public policy issues, such as abortion, capital punishment, racial profiling and the rules of war.

## INTER4439

3 Credits

### Questioning Religion

Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions — and in people's own lives.

## INTER4505

3 Credits

### Psychology of Terrorism

An in-depth analysis of terrorism, the terrorists' beliefs and reasons for actions against a certain group or government agency both here and abroad. What beliefs cause terrorist practices and the psychology of the suicide bomber syndrome. (Equivalent to PADM4505 Psychology of Terrorism.)

## International Business

### IBUS2252

3 Credits

#### Latin America and the Global International Trade

This course will provide an analysis and understanding of the new international trade in a global economy, its impact on the economies of Latin-American countries and how they may benefit from this new economic reality.

## Law

### LAW2151

3 Credits

#### Principles of Immigration Laws

The study of U.S. immigration laws. The course will examine the impact of U.S. immigration laws on business decisions for employment strategies. Visas and immigration consequences of criminal activities will be covered. Current and proposed legislation will be discussed.

### LAW2152

3 Credits

#### Introduction to Criminal Law

This course provides the philosophical and historical background of the agencies that comprise the criminal justice system. It focuses on the development of justice and law, crime and punishment, the administration of laws, the agencies' functions, career orientation and public relations.

### LAW3001

3 Credits

#### Advanced Business Law

This course will focus on corporate law, contracts, commercial leases and employment law. The class will analyze cases related to these subject matters as well as the practical aspects related to the legal issues in these areas.

### LAW3002

3 Credits

#### Family Law, Divorce and Custody

This course will focus on the grounds for divorce in the states of New York and New Jersey; equitable distribution; and issues related to child custody, alimony and child support. Other parental-rights issues and adoption will also be discussed.

## Management

### MGMT1110

3 Credits

#### Business in a Global Society

A survey of the functions and operations of business organizations in a global marketplace. Organizational structure, operations and financing of business firms are studied in light of the legal, social, regulatory and environmental issues affecting business on a global basis. Critical thinking, communication, research and problem-solving skills are emphasized in individual and group settings. *Fall*

### MGMT1111

3 Credits

#### Introduction to Business Management

The principles of management; planning, organizing, staffing, directing and controlling public

# Marketing • Mathematics

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and private organizations; the functions common to all managers; communication, motivation and decision making.

*Fall*

## MGMT3105

3 Credits

### Money Laundering and the Finance of Terror

This course will examine the history of money laundering and terrorist financing with the impact on the global economy. The purpose is to examine the evolution of the financial activity involved to disguise criminal funds.

## MGMT3111

3 Credits

### Management and Labor

This course will establish a framework for the analysis of labor-relations problems; appreciation of the role of management and labor in our society; an understanding of the grievance, mediation and arbitration procedures; an analysis of the changing role of labor; and the concept of participatory or shared management.

*Spring*

## MGMT3200

3 Credits

### Contemporary Managerial Issues

This course allows for the presentation and discussion of current managerial issues. All aspects of management are potentially included in the course content, i.e. managing teams, human resource management, ethics, organizational behavior, etc. Topics change; may be repeated for credit.

# Marketing

## MKTG2050

3 Credits

### Introduction to Marketing Management

The development of comprehensive marketing programs and managerial techniques, including assessment of the environment, target markets, roles forecasts, advertising and promotional strategies, budgeting and marketing objectives, among other topics.

*Fall, Spring*

## MKTG2040

3 Credits

### Advertising and Promotion

As the field of advertising and promotion continues to dramatically change since the dominant days of high-powered Madison Avenue agencies, marketers must look beyond traditional media in order to achieve success. In order to best communicate with consumers, advertisers must utilize a myriad of tools (advertising, public relations, direct marketing, interactive/internet marketing, sales promotion

and personal selling). The course underscores the importance of recognizing that a firm must use all promotional tools available to convey a unified message to the consumer.

## MKTG2050

3 Credits

### Search-engine Marketing

Based on real-world case studies and interviews with experts at Google, Yahoo!, Microsoft and other top search-engine companies, this course reveals how to exploit technical web marketing tools to reach customers and increase sales. This is the definitive class to search-engine optimization (SEO), pay-per-click (PPC) advertising and web analytics — the three critical tools marketing experts need to understand as marketing and sales move to the internet.

## MKTG2121

3 Credits

### Fundamentals of International Marketing

Functions and behavior of international marketing; import and export; currency and pricing matters; political, social, legal and cultural influences; exchange rates; tariffs; and other matters pertinent to international commerce.

# Mathematics

## MATH0096

3 Credits\*

### Basic Mathematics

Basic computational skills and basic numerical concepts; includes basic arithmetical concepts, real numbers, linear equations, polynomials, quadratic equations and introductory algebra.

*Fall, Spring*

## MATH0097

3 Credits\*

### Basic Algebra

Set of real numbers, linear equations and inequalities, relations and functions, graphing of linear systems, polynomials, relational expressions, quadratic equations and functions.

*Summer II, Fall*

## MATH1105

4 Credits

### College Algebra

Signed numbers, algebraic expressions, factoring, fractions, first-degree equations, radicals, graphical methods, quadratic equations, quadratic systems, variation, binomial theorem. Prerequisites: elementary algebra and geometry.

*Fall, Spring*

\*Prerequisite credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).

## MATH1106

4 Credits

### Trigonometry

Solutions of right triangles by natural functions, logarithms, solution of right triangles using logarithms, functions of angles in any quadrant, solution of oblique triangles, trigonometric identities, variation, graphs of trigonometric functions, inverse functions, trigonometric equations. Prerequisites: intermediate algebra and plane geometry.

*Spring, Summer I*

## MATH1111

3 Credits

### Introduction to Mathematics I

The metric system and exponential notation, set theory, symbolic logic, numeration systems, number theory.

*Fall*

## MATH1112

3 Credits

### Introduction to Mathematics II

Graphing and linear programming, counting, permutations, combinations, probability, statistics.

*Spring*

## MATH1131

3 Credits

### College Mathematics I

Set theory, number sets, coordinate geometry, matrices, number theory.

*Fall, Spring*

## MATH1132

3 Credits

### College Mathematics II

Permutations, combinations, probability, introductory concepts in statistics, descriptive measures of central location, normal curve.

*Fall, Spring*

## MATH1135

3 Credits

### Mathematics and Civilization

This course will study the development of mathematics from number systems through algebra, geometry, probability and statistics. It will explore the relationship between the needs of society and the mathematics needed to satisfy those needs. By the end of the course, the student will be proficient in elementary algebra and geometry, be able to grasp mathematical reasoning and have a practical grasp of probability and statistics. For adult learners only. Prerequisite: department chair approval.

## MATH1141

3 Credits

### Introduction to Mathematical Methods

Linear and nonlinear equations and functions, exponential and logarithmic functions, simple

# Music • Philosophy • Physics • Political Science

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and compound interest, annuities, matrices and simultaneous equations, sets, introduction to calculus. Prerequisites: two years of college-preparatory mathematics.

*Fall, Spring*

## MATH1142

3 Credits

### Introduction to Statistics

Collection and presentation of data; descriptive measures; sets; probability theory; random variables; mathematical expectations; discrete and continuous probability distributions, including Binomial, Poisson and Normal; sampling distributions; introduction to regression and correlations. Prerequisite: MATH1141 Introduction to Mathematical Methods or equivalent.

*Fall, Spring*

## MATH1143

3 Credits

### Statistical Application of Business

Estimation, Type I and II errors, testing of hypotheses, analysis of variance, regression and correlation, time series analysis, index numbers, parameter and interval estimation. Prerequisite: MATH1142 Introduction to Statistics.

*Fall, Spring*

## MATH2153

3 Credits

### Production Techniques

An analysis of production techniques. The elements of production including capital, machines, methods, management and human resources are considered. Quantitative techniques such as inventory models, linear programming, scheduling, PERT and queuing theory are investigated.

*Fall*

## Music

### MUSIC1029

3 Credits

#### The Latino Musical Revolution

This course offers a historical overview of Latino music, including a closer look at musical text and musicians. Primarily, however, course materials and discussions will center around an attempt to gain a deeper understanding of the origins of the music, what inspired the changes, and the social context and cultural/political significance throughout the 20th century to today. Students will examine the works in which Latino music reflects the rich culture from which it is born, as well as artists' attempts to affirm ethnic and racial identities, to influence U.S. pop culture and music and to illustrate a realistic portrait of gender, racial and class relations.

## Philosophy

### PHIL1101

3 Credits

#### Introduction to Logic

The nature and functions of language, semantic fallacies, truth and validity, principles of correct reasoning, types of propositions and their logical relations, immediate inferences and syllogistic reasoning, formal fallacies, empirical knowledge and the principle of causality.

*Spring, Summer I*

### PHIL1178

3 Credits

#### Philosophy of Literature

The types of rational justification found in literature; philosophical opinions expressed by famous writers; literary works of philosophical significance.

*Intersession*

### PHIL2255

3 Credits

#### Business Ethics

Ethical theories and moral concepts in their application to business. Moral issues in regard to justice, social responsibility, regulation vs. free enterprise, the right of consumers, corruption and conflict of interest, advertising, environmental and ecological problems.

*Fall, Spring*

### PHIL2258

3 Credits

#### Ethical and Moral Analysis in the Sciences

This course will introduce students to the field of ethics through discussion of different ethical theories. Students will also formulate ethical principles relevant to medical practice, doctor-patient relationships and related areas of concern.

### PHIL2261

3 Credits

#### Ethical Issues in Computer Information Technology

This course provides a foundation for understanding the legal and ethical issues that have arisen as a result of the use of computer information technology. Current topics such as identity theft, employee surveillance, freedom of expression, computer crime, copyright infringement, social networking and the ethics of information technology corporations will be examined to better prepare individuals for making decisions in today's workplace.

### PHIL2271

3 Credits

#### Philosophy

A study of philosophers' attempts to formulate and solve fundamental problems in various philosophical disciplines: metaphysics, epistemology, ethics, political philosophy and philosophy of religion.

*Fall, Spring*

### PHIL2351

3 Credits

#### Medical Law and Ethics

This course is an introduction to the relationship between law and ethics applicable to the health care industry. Emphasis will be placed on understanding and properly employing the patient-health care provider relationship, maintaining patient right-to-privacy considerations, examining various ethical issues in health care and understanding the parameters of liability and malpractice.

## Physics

### PHYS1008

3 Credits

#### Physics of Medicine and Science

This course shows how the basic laws of physics are applied to medicine. Topics will include conservation laws, biomechanics, pressure and hydrostatics, sound and hearing, heat and thermodynamics, optics and vision, application of electrostatics to medicine, current electricity and magnetism, nuclear physics and their application in medicine and radiology.

### PHYS1126

3 Credits

#### Lecture 2 hours, Laboratory 2 hours Earth Physics

The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants. A topical treatment, not highly mathematical.

*Fall, Spring*

## Political Science

### POLS2266

3 Credits

#### Cuba: What Future?

This course presents a historical overview of Fidel Castro's Cuba and focuses on current challenges in its imminent transition. It focuses on salient topics such as the U.S. embargo, Cuba's political and economic future and the political strength and views of the Cuban-American community.

# Psychology

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## **POLS3003**

**3 Credits**

### **Contemporary Issues in Law and Society**

This course will examine a diverse array of issues related to topics associated with the laws by which people govern themselves individually and as a society. The class will explore topics via case studies and current readings, examining how laws affect everyday life, as well as society as a whole. Students will develop critical, analytical thinking skills as they examine the laws and judicial system which serve them through collaborative activities and class requirements.

## **POLS3005**

**3 Credits**

### **Contemporary Issues in Law and Society II**

This course will examine a diverse array of issues related to topics associated with the laws by which people govern themselves individually and as a society. The class will explore topics via case studies and current readings, examining how laws affect everyday life, as well as society as a whole. Students will develop critical, analytical thinking skills as they examine the laws and judicial system which serve them through collaborative activities and class requirements. Readings will vary. Course topics vary each offering; may be repeated for credit. The course extends the topics of POLS3003 Contemporary Issues in Law and Society.

## **POLS3006**

**3 Credits**

### **Deceit, Fraud and Identity Theft**

This course will examine the different types of fraud and their effects on society and the individual. The crimes to be covered include identity theft, insurance fraud, bank fraud, credit-card fraud and employee theft. While learning the different types of fraud, the class will also cover how to avoid being a victim.

## **POLS3009**

**3 Credits**

### **Financial Institutions, Criminals, Terrorism and Money Laundering**

This course will examine the role that corporations have played in corporate fraud, money laundering and terrorist financing with the impact on the global economy. The purpose is to examine the evolution of the financial activity involved to disguise criminal funds and the responsibility of the corporations. Examining the lessons learned from recent corporate activity, e.g., banking and investment industries (Wells Fargo, Bernie Madoff, etc.), the pharmaceutical industry (Mylan, Martin Shkreli, etc.).

## **POLS3801**

**3 Credits**

### **Government and Political Systems**

This course will explore fundamental concepts of governmental and political systems in various

countries. It will introduce students to the role governments play in identifying and addressing issues that impact their citizens. The impact of the political system on governments and its actions will also be investigated. (Satisfies the international-perspective course requirement in the B.A. in individualized studies degree program or may be used as an elective.)

## **POLS3802**

**3 Credits**

### **Civil Leadership and Political Empowerment**

With this class, students will deepen their understanding of how the economic and political landscapes of New Jersey and, more generally, the United States can generate opportunities for Hispanic participation and representation.

## **POLS4510**

**3 Credits**

### **Emergency Management and Public Policy**

Develop an understanding of how social science can be used as a basis for modifying public policy in relation to emergency management.

# Psychology

## **PSYC1141**

**3 Credits**

### **Psychology I**

Topics in developmental, abnormal and experimental psychology.  
*Fall, Spring*

## **PSYC1142**

**3 Credits**

### **Psychology II**

An expansion of basic principles of psychology. Topics include learning, motivation, perception, stress and sensation.

## **PSYC1143**

**3 Credits**

### **Parenting 101: Effective Child-rearing**

Theoretical, research and applied topics in parenting. Parenting infants through adolescents. Includes family communication systems, child and adolescent development, cultural child-rearing practices, intergenerational parenting, legal issues, parenting exceptional children and current topics.

## **PSYC1173**

**3 Credits**

### **Group Dynamics**

The process and dynamics of the small group studied via the development of the group and the solution of problems arising in that development.  
*Spring*

## **PSYC1181**

**3 Credits**

### **Mind Over Brain: An Introduction to Focused Thinking**

This course is designed to help students learn how to make the most of their thinking abilities by developing the crucial but often-neglected skill of directing one's thinking to the right issue at each step of every thought process. Participants learn when and how to refocus their thinking: (1) to "step back" from a thought process, (2) examine their thinking to identify any important gaps in it, (3) bridge the gaps by formulating and answering the right questions and (4) return to the original thought process with increased effectiveness. The technique of refocusing will be used to enhance students' abilities to solve problems creatively, comprehend difficult material quickly and completely, analyze logical arguments insightfully and achieve top performance without anxiety on tests.

## **PSYC1801**

**1 Credit**

### **Careers and Life**

An examination of viable careers in the 21st century with a focus on the life skills that are necessary to be competitive in the future job market.

## **PSYC1802**

**3 Credits**

### **Career Development: Theory and Reality**

Factors in establishing, changing or confirming career goals; skills development for ongoing careers and life planning; exercises to promote the development of academic, interpersonal and job-readiness skills; analysis of appropriate sources of information.

## **PSYC2001**

**3 Credits**

### **Psychology for Success**

This course is designed to increase students' success in school, at work and in their personal lives via assigned readings, class activities and discussions that focus on topics such as self-awareness, self-esteem, self-motivation, self-discipline, positive thinking, goals and obstacles, managing resources and communication and relationships. Techniques of developing skills toward achieving goals will be illustrated to enhance students' success.

## **PSYC2002**

**3 Credits**

### **Child and Adolescent Development**

The growth and development of children in terms of sensorimotor, intellectual and social behavior; the child in family, school and community. Prerequisite: PSYC1141 Psychology I.  
*Fall*

# Public Administration

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## PSYC2006

3 Credits

### Emotionally Healthy Lifestyles

The purpose of this course is to provide students with an opportunity to examine stress at home, at work and in the community. It will explore the physical and emotional impact of stress on the mind and body. Effective and empirically supported coping strategies will be presented in detail.

## PSYC3009

3 Credits

### Street Drugs: Types and Treatments

This class is focused on the types and actions of representative street drugs (stimulants, depressants and hallucinogens). Course materials include explanations of how drugs of abuse work in the human brain, the variety of drugs of abuse, their classification(s) and the drugs' origins. Materials will highlight drug use as a disease, including tolerance, dependence, withdrawal and brain reward. Materials covered will not include legal prescription medications, caffeine, alcohol or nicotine.

## PSYC3010

3 Credits

### Greater Than 50 Human Senses

This course develops an understanding of the variety of the greater than 50 human sensory systems. The class will review their underlying anatomy, functional limits, ranges and their exploration from historical origins to recent research evidence. It will also review the experimental and theoretical evidence of how perception is believed to be generated and, lastly, to address how alterations in one's senses reveal how brains function to construct one's subjective reality.

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## PADM1001

1 Credit

### Leadership Seminar

This course will provide students with the opportunity to develop their academic and social leadership skills. Participation in experiential learning activities and challenging service project learning will allow students to practice key success and leadership concepts and develop essential hands-on skills. Self-assessment, awareness, communication skills, performance appraisal, personal responsibility, perseverance and values clarification are typical of the skills examined and practiced. The importance of volunteer and community service is also emphasized as it relates to leadership and the students' development of their sense of meaning or purpose. Corequisite: ENGL1000 Developing Academic Skills.

## PADM1002

1 Credit

### Leadership Seminar II

This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. Participation in experiential learning activities and challenging service project learning will allow students to practice key success and leadership concepts and develop essential hands-on skills. Students will examine exemplary leadership practices: model the way, inspire a shared vision, challenge the process, enable others to act and encourage the spirit and the heart. Self-assessment, awareness, communication skills, performance appraisal, personal responsibility, perseverance and values clarification are typical of the skills examined and practiced. The importance of volunteerism and community service is also emphasized as it relates to leadership and the students' development of their sense of meaning or purpose. Corequisite: ENGL1002 Developing Academic Skills II.

## PADM1003

1 Credit

### Sophomore Leadership Seminar

This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. This course is a continuation of PADM1001, PADM1002 Leadership Seminar I, II. Participation in experiential-learning activities and challenging service-project learning will allow students to continue to practice key success and leadership concepts and develop essential hands-on skills. Students will examine historical and contemporary concepts of leadership. Students will explore the traits, strategies and techniques that define leadership. Selected case studies will be analyzed and applied to actual situations in the contemporary world.

## PADM1004

1 Credit

### Sophomore Leadership Seminar II

This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. This course is a continuation of PADM1003 Sophomore Leadership Seminar. Participation in experiential-learning activities and challenging service-project learning will allow students to continue to practice key success and leadership concepts and develop essential hands-on skills. Students will continue to examine historical and contemporary concepts of leadership, with particular emphasis on women and leadership. Students will explore the traits, strategies and techniques that define leadership. Selected case studies will be analyzed and applied to actual situations in the contemporary world. Students will engage in a dialogue on educating women for leadership.

## PADM1005

2 Credits

### Leadership Seminar V

This course will provide students with the opportunity to increase self-awareness and self-knowledge in a group context, with particular emphasis on how to improve one's interpersonal skills. Emphasis is placed on self-leadership, team dynamics and a learning-community approach to project management. Leadership principles learned in prior courses form the foundation for a large community-service project. Challenging projects provide real-world leadership practice and critical hands-on skills. Participants will continue to develop their mentoring skills, while working with students in the other leadership courses. Reflection on one's individual behavior and group performance allow participants to increase personal competence and team-management skills. The importance of volunteerism and community service is also a major emphasis.

## PADM1006

2 Credits

### Leadership Seminar VI

This course will continue to provide students with the opportunity to increase self-awareness and self-knowledge in a group context, with particular emphasis on how to improve one's interpersonal skills. Emphasis is placed on self-leadership, team dynamics and a learning-community approach to project management. Leadership principles learned in prior courses form the foundation for a large community-service project. Challenging projects provide real-world leadership practice and critical hands-on skills. Participants will continue to develop their mentoring skills, while working with students in the other leadership courses. Students will also consider leadership ethics and personal conduct. Reflection on one's individual behavior and group performance allow participants to increase personal competence and team-management skills. The importance of volunteerism and community service remains a major emphasis. Note: For Educational Opportunity Fund students.

## PADM1102

3 Credits

### Computers, Crime and Forensics: Today's Criminal Investigation

If students have been fascinated by the television show "CSI" or have ever thought of being a crime-scene technician or criminal investigator, this seminar will enhance their interest as they receive a firsthand account of the step-by-step problems and procedures of a criminal investigation of crimes ranging from theft to homicide.

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## PADM1115

3 Credits

### Latino Promise® Leadership Seminar

The course gives Latino Promise® students an in-depth view of what it takes to succeed in life by meeting with successful Hispanic leaders from the fields of business, politics and the arts. The students will also explore these worlds by visiting and observing successful Latinos in their environment. The goal is to create Latino leaders for the future.

## PADM1116

3 Credits

### Latino Promise® Leadership Seminar II

The course will explore Hispanic leadership on a national level. The students will interact with Hispanic leaders who have an impact on business, art, sciences and government on a national level. The class will include trips to the U.S. Capitol, U.S. Supreme Court, Philadelphia, Boston and New York. Prerequisite: PADM1115 Latino Promise® Leadership Seminar.

## PADM1117

3 Credits

### Sophomore Latino Leadership Seminar — Project I

The course will build on the fundamental principles learned in the first-year Latino Leadership Seminar courses and apply them to local communities and volunteer organizations. Problem solving, conflict resolution, public speaking and strategic planning are some of the skills learned in the first part of the Sophomore Latino Leadership Seminar.

## PADM1118

1 Credit

### Sophomore Latino Leadership Seminar — Project II

This course continues to apply PADM1115 Latino Promise® Leadership Seminar strategies to local communities and volunteer organizations. Self-assessment, communication techniques and personal responsibility are skills that are examined and practiced.

## PADM1119

1 Credit

### Junior Latino Leadership Seminar I

This course will focus on improving students' public-speaking skills. Students will learn to overcome public-speaking anxiety, organize their ideas and maximize their effectiveness in audience communication. Speeches by world-renowned leaders will be used to illustrate these techniques.

## PADM1120

1 Credit

### Junior Latino Leadership Seminar II

Continuation of PADM1119 Junior Latino Leadership Seminar I with a focus on public-speaking skills through preparation and presentations of speeches.

## PADM1121

1 Credit

### Senior Latino Leadership Seminar Project I

The capstone Latino Leadership Seminar with advanced projects with leadership strategies learned in all previous seminars.

## PADM1122

1 Credit

### Senior Latino Leadership Seminar Project II

The final Latino Leadership Seminar Project that culminates the entire advanced leadership series learned in all previous seminars.

## PADM1123

1 Credit

### Career Exploration and Planning

This course is designed to assist students in self-assessment, career exploration, development and management. Students will participate in learning experiences and activities, tailored to individual needs and designed to promote their career development.

## PADM1124

1 Credit

### Veteran New Student Seminar

The purpose of this course is to provide student-veterans with a learning experience that supports their transition from military to civilian and college life. Topics such as academic success, self-care and planning one's education, career and future will be emphasized.

## PADM2247

3 Credits

### Law Enforcement Report Writing

An intensive course focused on the skills involved with note taking, interviewing and law-enforcement professionals in the preparation of reports. Particular emphasis will be placed on report procedures and the technical writing skills required of law-enforcement officers, security personnel, corrections officers, probation officers and scientific personnel.

## PADM3300

3 Credits

### Public Policy and Administration

This course provides students with an overview of public policy and administration in the United States, including the formulation, implementation and assessment of public policy initiatives at the national, state and local levels.

## PADM3301

3 Credits

### Public Sector Budgeting

In this course, students learn the theoretical foundations and the practice of various approaches to governmental budgeting, with particular attention to the role of the budget as a policy instrument.

## PADM3302

3 Credits

### Ethics and Values in the Public Service Administration

In this course, students examine various theories of values and ethical systems, with a view toward understanding the influence of ethics and values on public service administration.

## PADM3303

3 Credits

### Public Personnel Administration

Students are introduced to public personnel administration at the national, state and local levels of government, including the history and development of civil service and the merit principle, the functions and operations of a public personnel system and basic concepts and techniques in public personnel administration.

## PADM3304

3 Credits

### Public Sector Collective Bargaining and Labor Relations

This course examines collective bargaining and contract administration in the public sector, including grievance arbitration, with special emphasis on the implications of collective bargaining for public sector managers and employees of public service organizations.

## PADM3305

3 Credits

### Local Government Administration

Students are familiarized with the structure, functions and administrative processes of municipal and county governments, including taxing and spending powers, service delivery systems and political and legal constraints facing government administrators.

## PADM3336

3 Credits

### Health Care Management

This course provides an overview of how health care institutions are organized and governed; the role of the management staff, physicians, nurses and other clinical and support staff; and the effective operation of the management systems. This course will equip students with a strong foundational understanding of the American health care system, along with the basic management skills to make informed decisions to improve the quality and cost of the health care you or your organization provides.

## PADM3337

3 Credits

### Compliance, Regulatory and Legal Issues in Health Care

This course covers the broad range of topics affected by health law and regulation ranging from patient rights to corporate responsibilities. Public and private health-care regulatory agencies are examined as well as their impact on the operation of health care as a business. Legal

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issues ranging from professional malpractice to corporate wrongdoing are also discussed. This course will provide a foundational understanding of health-care advocacy, law, regulatory issues as well as compliance.

## PADM3340

3 Credits

### Inside the United Nations

An in-depth study of the origins and goals of the United Nations, explored in a historical context; policies of secretary-generals like Lie, Hammarskjöld, Boutros-Ghali and Annan; role of the General Assembly, the Security Council, Conference on Trade and Development and specialized bodies like the World Health Organization and the Development Program; the United Nations' record in dealing with world conflicts, human rights, nuclear weapons; the United Nations as controversial world body; reformation of the United Nations and obstacles therein.

## PADM3342

3 Credits

### Comparative Leadership Studies

This course uses case studies to explore leadership theories and their practices throughout the world. Public, private and not-for-profit leaders throughout the world will be the subject of discussions and research. Students will be expected to select two government, business, military or religious leaders who are from different countries to study.

## PADM3345

3 Credits

### Personnel Administration

Personnel administration is examined for public, not-for-profit and private sector organizations. The functions and operations of personnel systems are studied through the use of case studies, lectures and contemporary events.

## PADM3400

3 Credits

### Administrative Law

This course examines the law and legal principles governing the administration and regulation of government agencies. Focus is on the administrative rules, regulations and procedures of government agencies and bodies and the scope of agency authority. Emphasis is on how administrative agencies implement legislative policy through rule-making and enforcement as well as the judicial review of administrative-agency action; legislative and executive control of administrative action; legislative and executive control of administrative action; and the forms and organization of administrative agencies.

## PADM3410

3 Credits

### Leadership, Change and Lifestyle Modifications

This course will provide the students the opportunity to explore areas that will assist the individual with balancing the workforce demands with beneficial lifestyle choices. Topics will include: leadership qualities, personal and global sustainability habits, community responsibilities, personal and professional goal setting, nutrition and exercise, self care and stress-management techniques.

## PADM3801

3 Credits

### Basic Chinese Language and Culture I

Within a global context, the course will allow students to achieve a basic understanding of the written and spoken Chinese languages. Also, the important and practical aspects of Chinese culture will be presented, especially as they relate to the workplace.

## PADM3802

3 Credits

### Introduction to Networking and Internet Traffic Flow

Students will learn the basic structure of the internet and the fundamental concepts behind networks, both large and small. The course also includes the basic concepts of how devices communicate on the internet and how the physical components such as routers, switches, firewalls, web servers and DNS make up the backbone of the internet. This is a hands-on course that emphasizes lab-based learning.

## PADM3803

3 Credits

### Cyber Law

This course provides students with a grounding in the fundamental aspects of the sophisticated field of cyber law. Students will learn how to protect organizations from potential legal liabilities by implementing the best possible legal practices.

## PADM3850

3 Credits

### Global Culture for Public Services

The course delineates the aspects of global culture, including linguistics, which are relevant to and assist in, the dimensions and responsibilities of the areas of public service. Emphasis is placed also on the effects of globalization on public service and its various components.

## PADM4000

1 Credit

### Curricular Practical Training

This one-credit independent study is designed primarily for undergraduate international students but may apply to any student wishing to

engage in a paid internship. Students are expected to comply with the internship guidelines and meet any other requirements that may apply. This class allows students to experience the work environment while completing their studies in the appropriate Anthony J. Petrocelli College of Continuing Studies program.

## PADM4400

3 Credits

### Seminar on Leadership Development

In this seminar, participants study leadership theories in their application to employment settings, with a view toward developing their individual leadership skills.

## PADM4412

3 Credits

### Building Personal Leadership

This course explores situational leadership from a theoretical and practical view. Students apply the situational leadership model to instances with which the students are familiar to improve their skills for diagnosing readiness of the followers. Case studies, group projects and role playing will be used in the course.

## PADM4501

3 Credits

### Terrorism and Emergency Management

Examine terrorism in the context of emergency management. Definition of what terrorism is and why politically motivated acts of violence occur. Explore the ideological forces behind terrorism and provide an overview of terrorist groups and their intimidation and fear tactics, examine weapons of mass destruction and focus on the history of counterterrorism legislation.

## PADM4502

3 Credits

### Counterterrorism and Response

Examine effective methods of counterterrorism, response to reduce the effects locally, nationally and globally. Examine the history of terrorism in the United States of America, in other parts of the world, the motivation behind violence, how to prepare for effective response and to reduce the severity and extent of destruction.

## PADM4503

3 Credits

### Weapons of Mass Destruction: Political Issues

Examine the types and methods of distribution of weapons of mass destruction and the effect and message the terrorist is attempting to deliver. The most effective target the terrorist may identify and the desire to cripple certain industries, communications and travel and important political figures to make the strongest statement.

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## PADM4504

3 Credits

### Hazardous Risk Analysis

Examine how to identify the most vulnerable and/or most damaging target the terrorist may focus upon to cause the widest and most damaging interference with normal operation of a certain area or industry. By using the mitigation and preparedness process, safety measures may be put into place to reduce or eliminate a certain target from experiencing loss or damage.

## PADM4505

3 Credits

### Psychology of Terrorism

An in-depth analysis of terrorism, the terrorists' beliefs and reasons for actions against a certain group or government agency both here and abroad. What beliefs or causes the terrorists practice and the psychology of the suicide-bomber syndrome.

## PADM4506

3 Credits

### Domestic Preparedness for Terrorism and Catastrophic Emergencies

What can be done to prepare cities and communities from suffering the effects of a violent attack? What measures can be put into place to recover quickly and efficiently with the least loss of life and property? An in-depth analysis of terrorism, the terrorists' beliefs and reasons for actions against a certain group or government agency both here and abroad and what beliefs or causes does the terrorist practice and the psychology of the suicide-bomber syndrome are explained.

*Fall*

## PADM4507

3 Credits

### Business and Industry Crisis Administration

This course identifies, examines and integrates the diverse crisis-management, disaster-recovery and organizational-continuity issues facing the private-sector organization. The main focus will be on crisis management, disaster recovery, organization and continuity/resumption of business.

*Spring*

## PADM4508

3 Credits

### Technology and Emergency Management

This course will clarify the nature and extent of emerging technology, demonstrate its use in emergency management in relationship to mitigation, preparedness, response and recovery; and examine the problems and issues associated with the emerging technology and address the problems.

## PADM4509

3 Credits

### Political and Policy Basis of Emergency Management

To introduce the concepts and basic descriptive information about the political system and processes and demonstrate how political policies and procedures affect the role of emergency management.

## PADM4510

3 Credits

### Principles and Practices of Mitigating Hazards

To provide an understanding of the principles and practices of hazard mitigation in the United States on all levels of government in relationship to preventing future and recurring losses of life and property. To familiarize students with the tools, resources, techniques, programs, etc., to be used in hazard mitigation.

## PADM4511

3 Credits

### Social Dimensions of Disaster

To develop skills in applying sociological principles and research methodology to the practice of emergency management. To acquire an introduction to current research pertaining to the sociological aspects of disaster. To develop an understanding of how social science can be used as a basis for modifying public policy in relation to emergency management.

## PADM4512

3 Credits

### Safety and Emergency Administration

An overview of emergency management and an in-depth analysis of planning and administration of emergency management for the public and not-for-profit sectors. Identification of resources, natural and manmade disasters, Federal Emergency Management Agency (FEMA) and state agencies, Occupational Safety and Health Administration (OSHA) and Public Employees' Occupational Safety and Health Act (PEOSHA) regulations, incident (event) command procedure and safety in the work environment.

## PADM4513

3 Credits

### Emergency Management: Principles and Application for the Tourism, Hospitality and Travel Industries

This course considers the policy and behavioral issues with regard to emergency management and tourism in the broadest sense. It introduces emergency managers to issues, needs and planning that is relevant to this important sector of community life.

## PADM4515

3 Credits

### Advanced Fire Administration

Examines organization and management in the fire service, including new technologies, chang-

ing organizational structures, personnel and equipment, municipal fire protection planning, manpower and training and financial management.

## PADM4516

3 Credits

### Personnel Management for Emergency Services Community

This course examines issues and relationships in personnel administration and human resource development within the content of emergency services organizations. Topics include discussion of key concepts in personnel management, organizational development, productivity and motivation, recruitment and selection, performance management system discipline, workplace safety, resolving conflicts and grievances and collective bargaining.

## PADM4518

3 Credits

### Managerial Issues in Hazardous Materials

Examines regulatory issues; hazard analysis; multi-agency contingency planning; response personnel; multi-agency response resources; agency policies, procedures and implementation; public education and emergency information systems; health and safety; command-post dynamics; strategic and tactical considerations; recovery and termination procedures; and program evaluation.

## PADM4522

3 Credits

### Fire Prevention

Examines the administration, legal authority and compatibility with respect to state statutes, fire prevention code, fire safety code, enforcement and dealing with the construction of a board of appeals and hearings.

## PADM4523

3 Credits

### Fire Protection and Building Construction

Overview of BOCA building codes and enforcement, general building limits, types of construction, heights, area modifications, special uses and applications, occupant loads, means of egress, fire rating and construction, fire walls, fire areas, special hazards and finishes, overview of protection signaling and alarm systems.

## PADM4527

3 Credits

### Fire Protection Systems

The design, installation and maintenance of portable and fixed fire-suppression systems, including fire extinguishers, fire protection hydraulics and water supplies, test procedures, hydraulic calculations and flow through pumps, pipes and hoses.



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## PADM4534

3 Credits

### Fundamentals of Fire Investigation

Examines the organization's responsibilities and authority of the fire investigator, fire behavior, basics of construction as it relates to the investigator, basic electricity for the investigator, recognition of hazardous materials, examining and securing the fire scene, documenting, evidence collection and preservation, determination of the exterior and interior of the scene, determination of the area of origin, debris examination removal, reconstruction, determination of ignition source, interviewing and interrogating analysis of the findings and presentation.

## PADM4536

3 Credits

### Motor Vehicle Fire Investigation

Examines the method of evidence collection, documenting and preservation, determining the origin and cause of the fire, research in relationship to the vehicle manufacturer, recognizing the need for more qualified assistance to determine cause, interviewing and interrogation and investigation of the financial status of the victim.

## PADM4537

3 Credits

### Transit System Safety

The course promotes an understanding and implementation of the system-safety concept: people, procedures, facilities and environment. Students study organizational relationships, including coordination across functions and departments, and their impact on the safety department. The steps necessary in the development and implementation of a system-safety plan using engineering and behavioral safety approaches are applied.

## PADM4538

3 Credits

### Transit System Security

This course examines the tools needed to develop a system plan and implement the program, using resources to reduce crime and improve passenger and employee security. Included in the course are basic security terms, the five steps in threat and vulnerability identification and the resolution process. Assesses the security plan, design and construction, agency policies and procedures and various types of transit-security staffing.

## PADM4539

3 Credits

### Effectively Managing Transit Emergencies

The course examines the method used to develop and implement transit-emergency management and response programs, the nature of emergencies and disaster and emergency concepts.

## PADM4540

3 Credits

### Transit Explosives Incident Management

The course examines the preparation and initial-response planning to acts of terrorism, understanding how to implement the plan and the procedures to respond to an explosive incident. The identification and general security awareness in the transit environment, identification of flaws in facility or vehicle design and how to discourage criminal activity are addressed.

## PADM4543

3 Credits

### Municipal Budgeting

The course examines the budget function and process of county- and municipal-finance systems, the methods used to determine the needs of the community and individual agency, measuring the capability and benchmarking of the agency, preparing and presenting the budget and selling the budget and needs to the county or city administration.

## PADM4544

3 Credits

### Geographical Information Systems and Emergency Response

The implementation of geographical information systems (GIS) for mitigating planning, response and recovery for emergency responders. A general understanding and overview of what GIS is, how data is displayed and how to design and manage a database to assist in mitigation, preparedness and planning, response and recovery. Basic mapping concepts to deliver information in an easy-to-read display will enable the student to use real-time decision-making skills based on information gathered. Illustrations on how to use GIS in all phases of emergency service, including ingress/egress routes for evacuation efforts and quicker response.

## PADM4545

3 Credits

### Effective Risk Communications for Leadership

Developing better oral and writing skills with the use of modern technology, learning how to deal with the media as a public relations officer and to use the media as an effective tool, writing press releases, fostering good relationships with the media, developing better public relations skills to inform and educate the public and how to handle damage control.

## PADM4547

3 Credits

### Global Issues in Health and Human Services

This course is held in the United States with the option of taking the course overseas, when scheduled, including at FDU's Wroxtton College in Oxfordshire, England. An instructor will

facilitate guest lectures to provide information on relevant issues affecting clients of health and social service providers. Global differences in service priorities in the areas of health care, mental health, disease control, inoculations, geriatrics, domestic-violence prevention, child-abuse prevention, early childhood learning and services for persons with disabilities.

*Fall, Spring, Summer*

## PADM4548

3 Credits

### Legal Issues in Health and Human Services Administration

There are many legal issues specific to the health care and human services clients. This course provides an overview of the legal process and delves into patient rights, rights of the mentally ill, health care directives, family law, domestic violence laws and other relevant topics.

*Fall, Spring, Summer*

## PADM4549

3 Credits

### Public Policy for the Health and Human Services Community

Legislation and government policy have a major impact on program priorities and funding for special-needs populations. This course addresses the legislative process, how a bill is introduced, gatekeepers, special interest groups, political action committees, the media, research methods and the role of advocacy and lobbying within the political system.

*Fall, Spring, Summer*

## PADM4550

3 Credits

### Program Design and Implementation for Health and Human Services Organizations

Designing new programs to serve varied populations will be the focus of this course. The student will develop a program from idea to implementation, including conducting a needs analysis, drafting outcome measures, determining requirements and recommending a financing plan including the role of fundraising and grants from private and government sources.

*Fall, Spring, Summer*

## PADM4551

3 Credits

### Budgeting and Finance for Health and Human Services Professionals

This course provides students with an understanding of the fundamentals of budgeting and finance, budget preparation, distinctions between operating and capital budgets and the role of donations and grants from government and private foundation sources.

*Fall, Spring, Summer*

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## PADM4552

3 Credits

### **Complementary and Integrative Medicine**

The practice of medicine is changing. A new paradigm called integrative medicine is emerging. It is a holistic healing model that combines western (allopathic) medicine with complementary modalities. For health care professionals and lay persons seeking information, this course is designed to introduce students to what the National Center for Complementary and Alternative Medicine (NCCAM) refers to as CAM modalities. These include whole medical systems rooted in traditional practices as well as chiropractic, acupuncture, herbs, massage, foods and spirituality.

*Fall, Spring, Summer*

## PADM4553

3 Credits

### **Foundations of Emergency Medical Service Administration**

This course will introduce the basic management components of an emergency service system. Topics of discussion will include planning, budgeting and revenue sources, scheduling, team building, problem solving and communication, quality improvement, customer services, managing clinical matters, continuing education, medical control, managing a communication center, the role and impact of regulations, community development, developing a culture of excellence.

## PADM4554

3 Credits

### **Quality Improvement for the Emergency Medical Services Community**

Developing a comprehensive ongoing program of quality improvement for emergency management services organizations is a challenge to administrators. During this course, students will be introduced to both quantitative and qualitative methods of developing and implementing programs that utilize meaningful data and performance measurement, staff participation and quality benchmarking in the context of emergency management services provision.

## PADM4555

3 Credits

### **Public Policy and Politics in Emergency Medical Services**

Public policy and politics impact emergency management services delivery on many levels. Discussion and course work will examine how public policies are developed; how emergency management services organizations can initiate or become involved in the policy and political process; and the administrative or operational impact of recently adopted (or proposed) federal, state and local policies.

## PADM4556

3 Credits

### **Legal Issues in Corrections**

This course provides an overview of the legal policies and practices that govern adult correctional institutions; legal issues pertinent to facility operations and standard operating procedures; security, custody and control. The course reviews a history of correctional law and the evolution of prisoners' rights; a review of the United States Supreme Court cases that directly impact on prisons and prisoners; due process; inmate lawsuits and requisite; and other relevant legal topics.

## PADM4557

3 Credits

### **Inmate Behavior Management**

The basic components of inmate behavior management provide the focus for this course. Topics include: assessing risk and needs of individual inmates and developing classification processes; supervising inmates; alternatives for engaging inmates in productive activities; expectations of inmate behavior and management; high-risk prisoners; security-threat groups; special-management prisoners; managing the first-time offender and different methods for addressing problems with the inmate population.

## PADM4558

3 Credits

### **Critical Incident Management in Corrections**

Critical incidents in a correctional setting require specific strategies. This course will investigate potential episodes and approaches to address resulting issues and concerns. The course of study includes: hostage situations, hostage survival for staff, suicides, terrorist situations, equipment- and training-needs assessment, emergency-response planning and protocol, tactical assault, critical-incident stress and coordinating outside-agency responses.

## PADM4559

3 Credits

### **Health Issues in Correctional Institutions**

This course addresses the various medical and mental health issues that may arise in a correctional setting. Topics will include: infectious diseases, substance abuse, sexually-transmitted diseases, tuberculosis, hepatitis, chronic physical illness, mental disorders, psychotropic medications, appropriate treatment options, acute medical care, care for the elderly inmate, special-needs offenders and suicide prevention.

## PADM4560

3 Credits

### **Diversity in the Correctional Environment**

Balancing and managing a diverse environment are important factors in a correctional environment. Issues such as multicultural values, gang

behavior and mentality, extremists, the multiple offender, multigenerational populations, the antisocial personality in prison, staff and inmate subcultures, gender and race issues and cults will be explored.

## PADM4561

3 Credits

### **School Emergency Management**

Students will learn the principles of school safety and security essentials with a special focus on the security-assessment process, developing crisis preparedness and response guidelines, analyzing security issues and working collaboratively with students, parents, police and the community. The course also will examine specific security assessment components paramount to school emergency management, security policies and procedures, security staffing and operations, physical security, education, training and strategy.

## PADM4562

3 Credits

### **Leadership of the Founding Fathers**

This course will examine 10 of the nation's founding fathers — their lives, their roles in the development of the early government and the impact their individual leadership still has on the United States today. (Equivalent to HIST4562 Leadership of the Founding Fathers.)

## PADM4563

3 Credits

### **Violence and Culture**

A thought-provoking look at the complexity and contradiction involved in violence within society through examination of global societies. The course will examine the contrasts between violent and nonviolent societies around the globe.

## PADM4564

3 Credits

### **Managing Culture, Diversity and Change in the Global Workplace**

Both the internal and external work environments of organizations in the United States are changing rapidly. Many of these changes require managers to understand how and why diversity influences organizational behavior. This course focuses on the sources of changes that necessitate the effective management of diversity; how work forces, constituencies, clients, consumers and markets are changing; and how more diverse work groups differ from relatively homogenous work groups. This course will emphasize culture and cultural differences in employee, management and organizational behavior.

*Spring*

## PADM4565

3 Credits

### **White-collar Crime Issues**

White-collar crime has both direct and indirect impacts on individuals. This course will examine

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the nature of corporate and nonprofit white-collar criminal organizations. Students will gain an understanding of the nature and problems of white-collar crime as well as the detection and deterrence aspects of white-collar criminals, which will include criminal-liability sanctions and policing strategies. Areas to be addressed include: money laundering, securities fraud, political corruption, professional misconduct, organizational misconduct and numerous other related topics. This course will also explore legal, law enforcement and societal responses to white-collar crime.

## PADM4566

3 Credits

### Introduction to Cyber Crime and Computers

This is an introduction to the basics of cyber crime and computer forensics. This course will help the student define, categorize and fight cyber crime. The student will also have an understanding of what computer forensics is and its relation to solving cyber crime.

## PADM4567

3 Credits

### Introduction to Gangs and Gang Behavior

The growing phenomenon of street gangs in communities is a national concern. With the presence of gangs comes an increase not only in violent activity by the youths involved but also a general increase in criminal activity such as narcotics, theft and substance-abuse violations. The first step in initiating a program to combat gangs in the community is recognizing the problem and identifying the specific threat. This course acquaints the individual with the history and organization of gangs, legal definitions, identifiers, graffiti, hand signs and drug-dealing activities. It also explores local street gangs, nationally affiliated gangs, gangs within the prison systems, the relationship between the Department of Corrections and Law Enforcement and gang investigations using the Racketeer Influenced and Corrupt Organizations (RICO) Act system.

## PADM4568

3 Credits

### Airport Operations Safety

In this course, students will have the opportunity to learn the principles related to airport operations and safety as it applies to day-to-day operations. Students will review the U.S. Federal Regulations as they apply to different aspects of airport operations and safety, airport operations procedures, airport security, Aircraft Rescue and Fire Fighting (ARFF) and related entities involved in airport mishaps. Textbook(s) and federal regulations will be utilized throughout this course and the body of knowledge elements required to complete airport operations safety.

## PADM4569

3 Credits

### Computer-incident Response and Handling

Coverage of computer-incident response and incident handling, including identifying sources of attacks and security breaches, analyzing security logs, recovering the systems to normal, performing post-mortem analysis and implementing and modifying security measures.

## PADM4570

3 Credits

### Human Resource and School Resource Officer

The establishment of an effective School Resource Officer (SRO) Program requires effective recruitment, selection and training. Although in other business arenas the human resource department has been responsible for these management initiatives, law enforcement has traditionally not utilized human resource theories to accomplish such initiatives. This course is designed to merge the two and examine the components of recruitment, selection, training and evaluations from a human resource perspective. Human resource theories will be studied, and upon completion of this course, attendees will have a working knowledge of the role of human resource and have a management program that can be implemented to create an effective system that includes the elements of recruitment, selection, training and evaluation of the SRO and the SRO Program.

## PADM4571

3 Credits

### Real Estate Law

Survey of the law affecting real estate transactions. Various forms of ownership, instruments of conveyancing, brokerage, Ohio real estate law, landlord-tenant relationships, fair-housing legislation and land-use control are covered. Emphasis will be put on housing discrimination, desegregation issues and methods of eliminating the effects of prior discrimination.

## PADM4572

3 Credits

### Security Concepts

In this course, students apply principles of management to security administration within the private sector and contract security. Topics include personnel management, security planning, organizational leadership, communication and recruitment and training.

## PADM4573

3 Credits

### Introduction to Security Management

This course includes basic information on asset management, physical security and human-resource safety, including information assets. The need for documentation of policies, standards and procedures to reduce issues is also reviewed.

## PADM4574

3 Credits

### Corporate Security and Loss Prevention

This course investigates methods for protecting critical business assets from a wide range of threats. This area requires the protection of people first and then the development of a comprehensive security plan.

## PADM4575

3 Credits

### Incident Command Systems

This course will explore incident command systems and their uses. The course will review the administrative, logistical, financial and reporting aspect related to incident operations. Incidents are varied in size from HazMat issues to planned events to accidents and mutijurisdictional incidents, for example.

## PADM4576

3 Credits

### Threat Assessment

This course views assessment processes that focus on actions, communications and specific situations that an individual may pose a threat of violence.

## PADM4577

3 Credits

### Basics of Executive Protection

This course will explore the concepts of executive protection in various venues, including residence, travel and office. The course will explore the concepts and procedures for perimeter security, emergency or contingency planning and response procedures and other concerns for the individual charged with protection of the executive.

## PADM4578

3 Credits

### Fundamentals of Sustainability

This course will provide the fundamentals of what sustainability is and how it can be applied. Defining sustainability and identifying the key themes that are associated with them will provide the basis for making decisions in the area. As specific themes are explored, participants will learn why these themes are important and how they impact decision making as well as leadership roles in organizations.

## PADM4579

3 Credits

### Carbon Footprint and Climate Influence

Climate has been impacted by the increase in greenhouse gas. As participants seek to improve the climate, it is necessary to address issues such as greenhouse gas of organizations and individuals, also referred to as the carbon footprint. Organizations and individuals need to be aware of their emission sources and how to improve their climate action.

# Public Administration

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## PADM4580

3 Credits

### Public-Private Partnerships

Environmental changes involve more than technology changes, regulations and awareness campaigns. Effective change of a large magnitude requires individuals with aligned goals to work in concert to make change happen. This course will explore the skills needed to develop effective partnerships as well as how processes can be developed through a partnership when organizations have similar goals.

## PADM4581

3 Credits

### Water, Ecosystems and Agriculture

Water, an essential element of life, covers more than two-thirds of the planet. It also links the forest ecosystem with the bays and estuaries as well as carrying nutrients and other biological organisms. This course explores the importance of water in the ecosystems and how these relate to agriculture. Laws, rules and regulations will also be studied. (Equivalent to SCIE2010 Contemporary Environmental Issues.)

## PADM4582

3 Credits

### Sustainable Design and Construction

As buildings are designed and built, they have an impact on the way people behave and live, and they also have an impact on the ecosystem in which they are situated. This course will explore sustainable products and designs used in domestic and commercial construction. Students will diagnose the potential economic, cultural and environmental concerns for such projects.

## PADM4583

3 Credits

### Brownfields Identification, Cleanup and Redevelopment

Environmental awareness and economic necessity have led to various laws and actions to correct industrial contamination of land. As a result of these activities, remediation, reclamation, reuse and redevelopment of land that was classified as brownfields have occurred in cities and mining areas. This course will explore the laws and their implications, how brownfields have been identified and cleaned up and redevelopment policies and actions.

## PADM4584

3 Credits

### Energy and the Environment

Clean and affordable energy sources are essential for sustainable development. Issues of ozone-layer depletion and global climate change have been associated with the use of certain energy sources such as gasoline and natural gas. This course will explore other sources of energy such as solar, wind and wave that can be utilized as a source of clean energy at a reasonable price.

## PADM4585

3 Credits

### Biodiversity: Its Concepts and Implications

The term biodiversity is used to describe the variety of all forms of life in a specific ecosystem. As the ecosystem changes, so do the forms of life in that system. This class will explore different methods for conservation of ecosystems and how such efforts have succeeded or failed.

## PADM4586

3 Credits

### The Green Movement: Past, Present and Future

Early in the 20th century, different advocates of the stewardship of the environment and the sustainable management of resources started the environmental movement. Through the last century, this movement has broadened its focus to a larger green movement. This course will explore the basis for the conservation movement and the evolution of the green movement. Some implications of the current policies and practices will provide insight into where this movement is going in the near future.

## PADM4587

3 Credits

### Introduction to Homeland Security

This course will explore the basic issues and concepts relative to homeland security from the domestic and international perspectives. Included in the course will be the sources and nature of threats, basic issues and national policies. The course will also study defense-strategy formulation.

## PADM4588

3 Credits

### Comparative Governmental Homeland Security Systems

The concept of homeland security and the evolution of these systems is relatively new, having developed as the United States developed its system. This course will investigate various national policies and practices.

## PADM4589

3 Credits

### Legal Issues in Homeland Security

The U.S. Constitution provides the framework for all laws in the United States, but there are state laws, executive orders, rules and regulations and other vehicles that establish a legal system. The threats of terrorism and natural disaster have impacted the legal base of American society. This course will explore legal issues in homeland security.

## PADM4590

3 Credits

### Religion and Terrorism

Religion has a significant impact on cultures and even governments. Historically, there have been periods of time when religion has been

the basis of conflict and wars. This course will investigate how religion has been linked to terrorism. (Equivalent to HUMN4590 Religion and Terrorism.)

## PADM4591

3 Credits

### Changing Policing Philosophies: From Traditional Policing to Intelligence-led Policing

Police operations have changed significantly in the last decade. Where tactical patrols were common, law enforcement has moved from being reactive to proactive. The current model involves appropriate use of information and intelligence, and this course will explore this change as well as introduce students to intelligence-led policing.

## PADM4592

3 Credits

### Introduction to Network Security

A guide to network security is provided in this course. General security concepts discuss authentication methods, common network attacks and how to safeguard systems. Communication security covers remote access, email, the web, directory and file application of border controls such as DMZs, extranets and intranets. Operational security details disaster recovery, forensics and continuity. The lab component provides the student with hands-on experience with securing networks, intrusion detection and installing and configuring a wireless network.

## PADM4593

3 Credits

### Introduction to Computer Crime and Data Forensics

This is an introduction to the basics of cyber crime and computer forensics. This course will help the student define, categorize and fight cyber crime. The student will also have an understanding of what computer forensics are and their relation to solving cyber crimes.

## PADM4594

3 Credits

### Computer Networking and Data Communication: Implications for Law Enforcement

This is an introduction to the basics of computer networking and how data is communicated. The student will understand the concepts of computer networking and will be able to form a small workable network system. An understanding of how data is communicated from system to system and machine to machine will be gained. Coupling these two methods will help the student understand how the criminal element can use the system to commit crimes or to create havoc on a network. This understanding will be very important in computer forensics and cyber crime.

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**PADM4595****3 Credits****Computer Hacking — Ethical and Unethical**

This is an introductory guide to find out how internal and external hackers operate and how hacking happens. Students will discover where and why a system is weak and how they can strengthen their system and their defenses. They will also create a safety plan and test their system with their own ethical hacking methods.

**PADM4596****3 Credits****Introduction to Computer Security and Current Problems**

Computers have a greater role in people's lives. People get many benefits from these systems but there are others who use these systems for other than legitimate purposes. In addition, there are issues that arise as part of new hardware and software that impact everyone. This course will explore current cyber issues, the problems they cause and security measures that are in place to address such problems.

**PADM4597****3 Credits****Global Issues for Not-for-Profit Administration**

Changing demographics, globalization, technology and economics are a few of the areas that are impacting not-for-profits as they attempt to provide services. Changes in how the public and private sectors provide services impact the not-for-profit sector. This course is designed to explore the issues that are impacting the not-for-profit sector and how this sector is addressing them.

**PADM4598****3 Credits****Public Policy for Not-for-Profit Organizations**

Not-for-profit organizations provide essential services to a large part of the population. The role of the not-for-profit sector is influenced by public policy as government moves to either provide less direct services or, at times, more services. This course will explore the relationship between public policy and the not-for-profit organizations.

**PADM4599****3 Credits****Program Design, Implementation and Evaluation for Not-for-Profit Organizations**

When organizations develop programs to meet a need, there are a number of aspects that need to be considered. In addition to clearly stating what the organization is trying to accomplish, there has to be a good design of what and how the organization plans to accomplish its goals, an implementation plan that will provide the

specifics of how this plan will be accomplished and an effective evaluation to ensure the organization is doing what it said it would do. This course is designed to look at how this process takes place in a not-for-profit organization.

**PADM4600****3 Credits****Budgeting and Finance for Not-for-Profit Organizations**

The areas of budgeting and finance are complex areas for any organization. In addition to the key elements of accounting and budgeting, there are other areas of concern, such as planning and control, auditing and linking the budget to the program and its outcomes. This course will explore the concepts used in the budgeting and finance process in not-for-profit organizations.

**PADM4601****3 Credits****Internship/Co-op**

This course is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and specific goals. It will provide the student with an opportunity to work within a not-for-profit organization, which is helpful for those wishing to enter this field of employment.

**PADM4602****3 Credits****Port, Bridge and Tunnel Security**

In the current environment, there is the threat of terrorist activities that may target areas where the most human casualties and disruption to lives will occur and where concerns of safety and security are threatened. The transportation systems are major targets of terrorists. This course will explore the safety and security of the ports, bridges and tunnels throughout the country. Examples of issues involving other systems around the world will be used for discussions.

**PADM4627****3 Credits****Introduction to Translation and Interpreting in a Health Care Setting**

This course explores how translation and interpreting occurs in health care settings, especially in hospitals, medical offices and government agencies. Primary emphasis is on medical terminology and production of clear and accurate oral communication and written texts on medical topics. Other topics include comparative health care systems and practices, ethical and legal issues and career pathways.

**PADM4628****3 Credits****Introduction to Translation and Interpreting in a Legal Setting**

This course explores how translation and interpreting occurs in a legal setting especially in courtrooms, government agencies and law

offices. Primary emphasis is on legal terminology and production of clear and accurate oral communication and written texts on legal topics. Other topics include comparative legal systems and practice, ethical and legal issues and career pathways.

**PADM4640****3 Credits****Strategic Administration**

Formulas and strategies to allow institutions, in both the corporate and public sectors, to adapt to inevitable changes in social, economic and technological landscapes. Specific techniques include forecasting the evaluation of trends and goal setting, with the objective of making the institution more viable and productive in ever-changing environments.

**Science****SCIE2004****3 Credits****Science: Pollution, Prevention and Sustainability**

The course focuses on environmental hazards and human health, pests and pest control, water pollution, municipal solid waste, hazardous chemicals, atmospheric pollution and a sustainable future.

**SCIE2008****3 Credits****Chemistry in Everyday Life**

Designed specifically for non-science majors, this course explains the importance of basic chemical principles and the impact they have on people's daily lives within a framework of relevant, real-world applications. Included may be topics such as the nutritional basis of healthy living, medicines and drugs, pollution and the conservation of natural resources and the agricultural production of food for an ever-expanding world population.

**SCIE2010****3 Credits****Contemporary Environmental Issues**

Water, an essential element of life, covers more than two-thirds of the planet. It also links the forest ecosystem with the bays and estuaries as well as carrying nutrients and other biological organisms. This course explores the importance of water in the ecosystems and how these relate to agriculture. Laws, rules and regulations will also be studied. (Equivalent to PADM4581 Water, Ecosystems and Agriculture.)

**SCIE2012****3 Credits****Conceptualizing Science Exploration**

An introduction to the physical sciences geared towards the non-science student. This class is an introduction to critical thinking and a survey of

# Sociology

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modern science wrapped into one package. Students will learn what science really is and how to survey the world through the lens of scientific scrutiny. A foundation in the ideas of physics, geology and planetary science will be provided. While the course is largely conceptual, basic mathematical skills will be used.

**SCIE2015**  
**3 Credits**

**The Scientific Study of Yoga in the Modern World**

This class will explore the history of yoga and the application of yogic philosophy in the context of today's society. The class will include the physical practice of hatha yoga, the study of basic anatomical principles in yogic postures, the kinesiology of the asana practice, the philosophy of the eight limbs of yoga and the practice of modern mindfulness.

**SCIE2016**  
**3 Credits**

**Modern Meditation Practices and the Relevance of Yoga in Today's World**

This course will cover the physiology of the breath in reference to yogic meditation, the study of the nervous and endocrine systems and their response to stress, the neuroscience behind motivation and human behavior, the philosophy behind ancient yogic text and its pertinence to today's culture and the physical practice of restorative yoga.

# Sociology

**SOCI2241**  
**3 Credits**

**Sociology I**

An examination and application of basic sociological ideas; topics include education, urbanization, religion, culture, population, collective behavior, delinquency, social stratification, social organizations and associations.  
*Fall, Spring*

**SOCI2242**  
**3 Credits**

**Sociology II**

Role conflict and socialization; identification and definition of contemporary social problems, their causes, implications and possible solutions.  
*Spring, Even Years*

**SOCI2243**  
**3 Credits**

**Cultural Studies: Science, Technology, Work and Belief**

This course looks at different areas of culture and culture change, asking the question: "How did we get to where we are now in our lives, given the cultural foundations of the past?" It emphasizes the cultural forces exerted on people and their responses via work, technology

and belief systems to those forces. This course, though framed in a traditional classroom/format, will be highly participatory in nature. Student surveys, collaborative projects, journal-histories and observations are some of the ways in which active student response to ideas will shape the outcomes of this course.

**SOCI2244**  
**3 Credits**

**Society: Disaster and Disease**

The influence of disease and other natural events on human history; political, social, cultural and military developments affected by plague, infestation and natural disaster; human responses to such events.  
*Fall, Spring, Summer*

**SOCI2245**  
**3 Credits**

**Crime Detection: A Historical Overview**

An examination of how crime was prevented, detected, investigated and solved in other historical periods.  
*Fall, Spring, Summer*

**SOCI2246**  
**3 Credits**

**Communications and Gender**

This course will explore the differences and similarities in communication styles by gender, analyzing communication situations and the effect that culture and socialization play on the development of communication styles, behaviors and attitudes.  
*Fall, Spring, Summer*

**SOCI2247**  
**3 Credits**

**Popular Culture**

This course will be structured around the general framework of the text: *Popular Culture*. Aside from readings in the text, the class will experience films, music, television shows, advertising and popular literature. In addition, pop art will be discussed as the melding of fine art and mass culture, and dress will be explored as a form of popular material culture.  
*Fall, Spring*

**SOCI2250**  
**3 Credits**

**Sociology of Small Groups**

Microsociological analysis of group dynamics, interaction and social structure in personal and institutional settings in modern society with an emphasis on experiential learning.  
*Fall, Spring*

**SOCI2251**  
**3 Credits**

**Race and Ethnicity**

A theoretical and historical analysis of racial and ethnic groups in the United States with

emphasis on the nature of social interaction and change. Attention will be paid to the themes of ethnic and cultural identity, cross-cultural communications, causes of ethnic conflict and problem-solving efforts. The course will also examine the history of immigration within the United States, and how diversity continues to influence life in the United States.

**SOCI2310**  
**3 Credits**

**Social Problems I**

Examines the historical and sociological roots of critical social problems such as poverty, racism, sexism, crime, etc.

**SOCI2311**  
**3 Credits**

**Social Problems II**

The second half of SOCI2310 Social Problems I continues the examination of the historical and sociological roots of critical social problems such as race, class and gender in the United States.

**SOCI3211**  
**3 Credits**

**Political Sociology**

Analysis of the major sociological variables associated with political decision making and other political processes.

**SOCI3246**  
**3 Credits**

**Current Issues in U.S. Health Care**

This course will focus on the United States health care system, emphasizing the major trends and issues that have led to the current deadlock over health care reform. The course takes a historical approach as it analyzes a variety of approaches to health care financing, delivery and reform. Although this course concentrates on the U.S. health care system, the systems of other nations will be reviewed for comparison.

**SOCI3370**  
**3 Credits**

**Women and Work**

This course will explore the ways in which gender affects paid and unpaid work, the kinds of occupations historically associated with each sex, changes in those gender-work patterns by marital and parental status, gains in occupational equality and persistent inequalities.

**SOCI3470**  
**3 Credits**

**Modern Courtship and Marriage**

Examines the way in which modern couples find each other, how marriage plans are made, experiences of marriage and eventual family formation. internet dating and the new rules for meeting potential partners.

# Speech • Sports Administration

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## SOCI3610

3 Credits

### Multicultural Perspectives

Students will examine how cultural differences that result from race, class, gender and sexual orientation impact behaviors and attitudes. The existing systems of power and privilege that maintain the social constructions of race, gender and sexual orientation within the United States will be analyzed. Historical and current perspectives on race, class, gender and sexual orientation will be presented.

## SOCI4437

3 Credits

### Cultural Studies in the Dominican Republic

This course, held in the Dominican Republic, will provide students with an opportunity to study aspects of Dominican culture including history, religion, folklore, gender roles, education and world of work. Students will explore cross-cultural comparisons of American and Dominican culture through arranged experiential activities and with experts from the Pontificia Universidad Católica Madre y Maestra.

*Spring*

*Fee*

## Speech

### SPCH1111

3 Credits

#### Standard American-spoken English

Standard American speech patterns and usages, including idiomatic expressions, figurative language, localisms, colloquialisms and regional dialects will be discussed. Concentration on the physiology, phonetics, word and sentence stress patterns and topical vocabularies from vocational to academic will also be covered.

### SPCH1112

3 Credits

#### Standard American Speech Patterns

Continued emphasis on speech patterns, usage, idioms, figurative language, regionalisms; focus on audition factors, such as rhythm, stress, intonation; vocabulary-building, reading comprehension; application to professional and academic settings. Prerequisite: SPCH1111 Standard American-spoken English.

## Sports Administration

SPAD1800, SPAD2800, SPAD3800,  
SPAD4800

1–3 Credits

### Independent Study

Independent study in sports administration.

### SPAD2004

3 Credits

#### Introduction to Sports Administration

This course provides an overview of the business and organizational facets of sports administration. As with any business or organization, there are administrative tasks required, such as planning, organizing, coordinating, controlling and budgeting. Topics include sports management, career potentials, marketing, public relations, event planning, facilities management and recreational offerings.

### SPAD2010

3 Credits

#### Legal Aspects in Sports Administration

This course explores legal concepts relative to sports administration. Topics include constitutional due process; athlete participation and eligibility requirements; contracts for facilities, coaching and employment; and tort laws applicable to participants and spectators. Case studies will be used.

### SPAD2012

3 Credits

#### Nutrition and Wellness

This course explores the theoretical and practical aspects of nutrition and its relationship to wellness. Topics include nutrition and disease, physical fitness, weight management, stress management, addictions and lifestyle and their relationship to wellness.

### SPAD2013

3 Credits

#### Exercise Science for the Sports Administration Professional

This course will expose the sports administration professional to all aspects of the exercise field including, but not limited to, the following: human anatomy, human physiology, the multiple disciplines and professions of the exercise science field and the common professional dynamics between sports administration professionals and exercise physiologists.

### SPAD2014

3 Credits

#### Ethical Issues in Sports

This course will investigate ethical issues in sports activities, including regulations of intercollegiate athletics as well as professional sports. Topics covered will include drug testing, academic requirements, Title IX, differences in National Collegiate Athletic Association divisions and financial concerns of the athlete. This course will use current case studies as well as lectures.

### SPAD2015

3 Credits

#### Team Development

The concept of team is critical to many sports activities, yet many groups of people do not develop into a cohesive team. This course will explore how to effectively develop teams for maximum performance.

### SPAD2016

3 Credits

#### Stress Management

This course will explore the effects of stress on the individual. Stress can be categorized as good stress and bad stress, and there is a need to understand how stressors can be understood and addressed.

### SPAD2017

3 Credits

#### Safety, First Aid and Prevention of Injury

This course will investigate how injuries can be prevented or reduced in the sports environment. The course will also address how to provide first aid if an individual is injured.

### SPAD2018

3 Credits

#### Sports Internship

This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and goals.

### SPAD2019

3 Credits

#### Sports, Marketing, Public Relations

Concepts of marketing, promotions and public relations for various components of the sports industry; strategic planning and coordination of efforts; marketing strategies and varying consumer behaviors in different sports venues; social and economic issues related to buying and selling of sports; the inclusion of sponsorships and endorsements into marketing efforts.

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## SPAD2020

3 Credits

### **Fundraising in Sports**

An examination of the skills, strategies and techniques needed for successful fundraising and revenue generation, especially in collegiate and amateur athletic programs. Areas covered include donor characteristics and research, direct-mail strategies, phone solicitations, event and activity organization, gifts, corporate sponsorship, marketing plans and ethical and legal issues.

## SPAD2021

3 Credits

### **Strength and Conditioning**

This course will explore the theory and practice behind weight training and conditioning of sports participants. The course is designed to provide a comprehensive overview of strength and conditioning. Emphasis is placed on a basic understanding of nutrition, exercise technique, program design, organization and administration and testing and evaluation. Students will also explore the principles of supervising a safe-training environment according to National Strength and Conditioning Association guidelines.

## SPAD2022

3 Credits

### **Facility Management**

Management of the various types of sports and recreational venues, facility operations, event planning and management, personnel and human-resource issues, budgeting and equipment purchasing, marketing of events, maintenance and inventory and regulation and safety issues.

## SPAD2023

3 Credits

### **Sport in Contemporary Society**

Sports are integrated into society and enjoyed throughout the world on a cultural and competitive level. This course examines the social, political, cultural, philosophical, psychological, historical and practical aspects of sport history and evolution. This course also allows students to identify the role of sport in contemporary society both nationally and internationally, through discussion of sports-related scenarios.

## SPAD2024

3 Credits

### **Economics and Finance in Sports**

Economics and financial markets impact all areas of people's lives. This course will explore how these factors affect the sports and recreation communities. The topics include attendance and attendance modeling, salary structure and salary caps and financing stadiums, among others. The course also looks at the private versus public financing of sports teams and venues.

## SPAD2025

3 Credits

### **Global Perspectives in Sports**

Sports extend beyond national boundaries. This course will explore the sports from a global perspective by examining the similarities and differences between various national sport cultures. The course will also investigate the types of sports activities found in specific cultures in order to determine the potential for expansion of activities into other international venues.

## SPAD2030

3 Credits

### **Ultimate Sports Marketing**

Sports marketing is heralded as one of the most prestigious, exciting and popular fields in contemporary marketing. The number of related programs in colleges and universities has exploded, and companies tied with sports marketing handle thousands of avid career hopefuls each year. This course goes behind the scenes and outlines a strategic, integrated approach to effective and innovative sports marketing. It also provides detailed strategies on entering the sports-marketing field, acquiring funding, managing event logistics and more. This comprehensive class covers a wide range of topics including: use of the internet as a sports marketing tool, negotiations and contracts with sponsors and suppliers and specifics of licensing deals.

## SPAD2032

3 Credits

### **Sports and the Community**

This course will explore the relationship between sports teams and their surrounding communities. Course content focuses on customer/fan relations, effective communication, different ways to give back to the community and player interaction. The course aims to prepare students with a day-to-day glimpse into the community relations department of a sports team.

## SPAD2035

3 Credits

### **Exercise Physiology**

This course explores the human body's response to exercise. As the body exercises, there are anatomical and physiological responses that impact specific cells, muscles, organs and the complete body.

## SPAD3000

3 Credits

### **Fiscal Concept in Sports**

This course is designed to provide an understanding of financial methods and procedures in the sports industry. Topics include the development and management of budgets, financial statements, fundraising, sponsorship, facility financing and economic impact. The financial concepts, theories and their application will be related to youth, high school, intercollegiate, professional and commercial sports organizations.

## SPAD3001

3 Credits

### **Theory, Philosophy and Principles of Coaching**

This course examines the challenges of the coaching profession and provides an overview of the concepts that are essential in the preparation of sport coaches. Students will evaluate the current theoretical perspectives and critically examine the current research in coaching sports. Topics include developing a coaching philosophy, evaluating theories in motivation, understanding team dynamics, communicating effectively and improving player performance.

## SPAD3002

3 Credits

### **Human Kinesiology**

This course is designed to provide an understanding of the principles of mechanics and anatomy in relation to human movement. Topics include motor behavior, biomechanics and physiology.

## SPAD3003

3 Credits

### **Sports and Society**

This course is designed to provide an understanding of the different sociological issues facing sports. Issues relating to race and ethnicity, gender, deviance, violence, politics, religion and future trends and how they relate to youth, high-school, college and professional sports will be discussed.

## SPAD3004

3 Credits

### **Youth Program Administration**

This course is designed to provide the foundational knowledge of developing sustainable youth programming in a recreational or commercial setting. Students will learn the practices for recruiting, selecting, educating and evaluating coaches. Topics include youth philosophy, managing coaches, parents, risk, finances and events.



# Strength and Conditioning

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## SPAD3005

3 Credits

### Management in Athletic Training, Athletics and Health

This course will focus on the management concepts in athletic training. Students will study the standards, policies and practices, supervision and administration of athletic training and health-related programs. The course examines various issues, policies and procedures involved with the administration of athletic training in the traditional and nontraditional settings.

## SPAD3010

1 Credit

### Job-search Strategies

In addition to researching job requirements and projected opportunities, this class will explore how to develop appropriate documents to enable students to market themselves to potential employers, such as résumés and cover letters. Interviewing skills and how to effectively communicate and sell themselves will be included, as will concepts of networking and social media. Note: This course must be taken before SPAD4001 Sports Internship II.

## SPAD3024

3 Credits

### Special Topics in Sports Industries

This special-topic course involves active learning in an appropriate sports venue. Industry specialists will focus on functions in sports organizations. The class will involve site visits as well as classroom activities. Students must attend all activities, including the class as well as the site visits that may be in the metropolitan area. They are expected to make their own arrangements for the site visits. This does not substitute as an internship. Prior to registration contact Dr. JC Kim, associate professor of sports administration and co-director of sports administration, or Dr. Robyn Lubisco, assistant professor of sports administration and co-director of sports administration for the specific site for the term.

## SPAD3030

3 Credit

### Human Resource Administration in Sports

The course will provide students an introduction in human resource administration in a sports environment. Students will explore practices involving employers and employee relationships and apply these concepts to the day-to-day practices and skills required of a manager in a sports organization. The content will focus on areas such as human resource policies, recruiting, hiring, job analysis, creating position descriptions, performance evaluation, training, career development and supervision of staff members and volunteers.

## SPAD4000

3 Credits

### International Sports Administration\*

This course is a study-abroad course that includes exploring various issues related to the governance of international sport organizations and events throughout the world and their impact on operations and management within the sport industry. Areas covered include the Olympics, World Cup, Paralympics, international marketing, culture, politics and ethical dimensions. Students will gain a deeper understanding of the various facets of conducting sport business in the international marketplace. Students will be required to complete a research paper approved by the instructor after completing the course, and this paper will be used as a senior thesis. It will also be used as a writing sample for the learning-outcomes assessment.

## SPAD4001

3 Credits

### Sports Internship II

This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and goals and should be taken toward the end of the program. Prerequisite: SPAD3010 Job-search Strategies.

## SPAD4500

3 Credits

### Coaching Certification

This national certificate is offered through the National Federation of State High School Associations (NFHS). Students will be required to have satisfactory completion of the following four NFHS courses: Fundamentals of Coaching; First Aid, Health and Safety for Coaches; Concussion in Sports; and NCAA Eligibility. In addition, they will be required to complete a research assignment as determined by their instructor.

# Strength and Conditioning

## STRC1001

3 Credits

### Introduction to Strength and Conditioning

Students will be exposed to the world of strength and conditioning at all levels — the private sector, scholastic, collegiate as well as the professional sports world. This course will delve specifically into the profession as a whole as well the essentials for future successful strength and conditioning coaches.

## STRC3000

3 Credits

### Biomechanics

This course will cover in-depth arthokinetic/arthrokinematic and biomechanical principles of weight training and conditioning.

## STRC3001

3 Credits

### Clinical Experience in Strength and Conditioning I

Students will be studying specific anatomy and physiological principles related to the strength and conditioning profession. Topics include flexibility, mobility, actin/myosin cross bridging and muscle contraction as well as planning for successful strength and conditioning experiences. Prerequisite: BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and STRC1001 Introduction to Strength and Conditioning. Corequisite: STRC1001 Introduction to Strength and Conditioning.

## STRC3002

3 Credits

### Clinical Experience in Strength and Conditioning II

Students will continue to study anatomical and physiological principles related to the strength and conditioning profession. Among the topics are body composition, warm-up and cool down, flexibility and performance assessment. Prerequisite: STRC3001 Clinical Experience in Strength and Conditioning I.

## STRC3003

3 Credits

### Upper Body Exercise Techniques and Program Design

Technique, teaching, program design integration, safety procedures and injury modification for upper-body exercises. Use of various exercises, equipment and training programs to attain desired effect on the upper-body musculature. Prerequisites: STRC1001 Introduction to Strength and Conditioning and STRC3001 Clinical Experience in Strength and Conditioning I.

\*Students may substitute an independent research project approved by the program director if they are unable to travel with the class.

# Sustainability

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxtton College

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## STRC3006

3 Credits

### **Lower Body Exercise Techniques and Program Design**

Technique, teaching methods, safety procedures and injury modifications for lower-body resistance training techniques.

## STRC3007

3 Credits

### **Kinesiology**

Detailed study of the structure, function and kinesiology of each body region as well as quality-of-movement analysis. Prerequisite: STRC1001 Introduction to Strength and Conditioning.

## STRC4007

3 Credits

### **Aerobic/Anaerobic Development**

Students will study the in-depth processes of both aerobic and anaerobic metabolism. Students can also expect to have to demonstrate this knowledge through the creation of a sports-specific condition program geared at enhancing cardiorespiratory reactioning as well as anaerobic/aerobic performance.

## STRC4008

3 Credits

### **Internship in Strength and Conditioning I**

Students will continue their practical educational development in the field of strength and conditioning by completing an internship at a local facility. Topics include sports-specific exercise selection and programming, progressive overload, Russian conjugate and block training. Prerequisite: STRC3001 Clinical Experience in Strength and Conditioning I.

## STRC4009

3 Credits

### **Internship in Strength and Conditioning II**

Students can expect to continue their practical education in strength and conditioning and can expect to study the following topics: Olympic lifting, periodization, undulating and step-variable periodization. Prerequisite: STRC4008 Internship in Strength and Conditioning I.

# Sustainability

## SUST1000

3 Credits

### **Introduction to Sustainability**

The fundamental dimensions of sustainability are: a) to look back to its ecological roots, which is a reminder of the uncomfortable topic of limits to the use of the earth's resources; b) the unappreciated challenge of integrating one field, environmentalism, with two previously almost entirely separate ones: economy and human society; and yet another big challenge, the need for a new relationship between the world's wealthier countries and those with severe poverty.

## SUST1001

3 Credits

### **Environmental Science**

A foundation course for the sustainability curriculum. Through lectures, field trips and lab work, students will learn the basics of environmental science, the different sorts of environments, the relations between the human species and their surroundings. Community issues, future concerns and economic issues will be raised.

## SUST3000

3 Credits

### **Geomapping GIS**

An interdisciplinary approach, GIS incorporates the collection and documentation of data with storage and retrieval components for analysis and discovery to implement critical decision-making techniques. First responders have access to life-saving and life-threatening information that is stored and retrieved from GIS. Using spatial-analysis tools like ArcGIS software, online map servers and database-management systems, students in this program will gain a different point of view from their general course of studies.

## SUST4000

3 Credits

### **Environmental Policy/Law/Ethics**

This class will focus on the interrelationship of the environment (in its natural state) and humanity (as an embodiment of intelligent actors) acting upon the environment with consumptive and preservation forces leading to the establishment of rules, laws and policies to balance their coexistence.

# African Studies • Anthropology • Arabic • Art

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## University College: Arts • Sciences • Professional Studies

Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate school director.

### Africana Studies

*School of Criminal Justice, Political Science and International Studies*

AFST1101

3 Credits

#### **Africa and Africans I: History and Traditions**

This is an introductory survey course on Africa. This course provides students with insights into the history, traditions and the African society before 1800. The course will focus on the family, ideas, linkages, kinships and ways of life of the African people.

AFST1102

3 Credits

#### **Africa and Africans II: Communities and Culture**

This survey course will introduce students to the diversity of the African continent. It will introduce students to African communities and cultures as well as focus on the relationship among African societies and between Africa and the rest of the world. It will provide insights into contemporary Africa (since 1800) including its arts, economy, ideas, literature, music, politics, etc. Prerequisite: AFST1101 Africa and Africans I: History and Traditions.

### Anthropology

*School of Psychology*

ANTH3101

1 Credit

#### **Introduction to Mayan Civilization**

This course provides an overview of Mayan history, culture, art and archaeology, as well as field experiences at several ancient Mayan cities, excavation sites and caves (e.g., Baking Pot, Cahal Pech, Caracol and Xunantunich). Students will have an opportunity to explore everything from the jade-filled tombs of rulers to post-classic period refuse dumps, as well as the opportunity to learn about excavation techniques, mapping and methods for surveying cultural remains. Specific topics include Mayan

household archaeology, Mayan ideology and post-classic Mayan achievements. A field course in Belize, Central America (in cooperation with FDU's sister institution, Galen University).

### Arabic

*School of the Humanities*

ARAB1101

3 Credits

#### **Elementary Arabic I**

An introduction to contemporary spoken and written Arabic.

ARAB1102

3 Credits

#### **Elementary Arabic II**

A continuation of ARAB1101 Elementary Arabic I. Prerequisite: ARAB1101 Elementary Arabic I or equivalent.

ARAB2103

3 Credits

#### **Intermediate Arabic I**

A continuation of conversation and reading in contemporary Arabic with emphasis on the cultural context of the language. Prerequisite: ARAB1102 Elementary Arabic II or equivalent.

ARAB2104

3 Credits

#### **Intermediate Arabic II**

A continuation of ARAB2103 Intermediate Arabic I. Prerequisite: ARAB2103 Intermediate Arabic I or equivalent.

### Art

*School of Art and Media Studies*

#### *Art History and Lecture*

ART1101

3 Credits

#### **Art Appreciation**

Basic elements underlying various forms of the visual arts. (Cannot be counted toward a major or secondary area of concentration in fine arts.)

ART1105

3 Credits

#### **Principles of Art Appreciation**

This course is designed to introduce students to the language of art through an examination of

the elements and principles of design. Eastern and Western styles will be included in discussions of masterworks. Aesthetic judgment, compositional organization and artistic methodology will be examined in each case. Emphasis will be on the viewing and discussion of works within a specific context involving some demonstrations and hands-on studio experiences. Museum visits and art experiences will be designed to reach the ultimate goal, i.e., an appreciation of art.  
*Fall, Spring*

ART1107

3 Credits

#### **Development of Art I**

History of art from ancient through medieval times. Required of all art majors.

ART1108

3 Credits

#### **Development of Art II**

History of art from the Renaissance through the present. Required of all art majors.

ART1112

3 Credits

#### **Medieval Art**

Painting, sculpture, architecture and minor arts from the early Christian through the Gothic periods.

ART1120

3 Credits

#### **Modern Art to Mid-century**

The major movements in painting, sculpture and architecture in Europe and America in the late 19th and early 20th centuries.

ART1131

3 Credits

#### **History of Graphic Design and Illustration**

A survey of visual-communication systems from early global civilization through book and magazine illustration, poster and advertising art from the 19th century to the present. (Equivalent to COMM1131 History of Graphic Design and Illustration.)

ART1133

3 Credits

#### **History of Photography**

History of photography from Niépce to the present day.

# Art

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

**ART1135**

**3 Credits**

**Cinema I: The Director's Vision**

Cinema theory, technique, technology and style. Weekly screenings of important films. May be repeated, but student may not repeat topic.  
*Fall* *Fee*

**ART1136**

**3 Credits**

**Cinema II: Themes in Films**

Major films in historical and contemporary cinema and their unique contributions to film theory, technique, technology and style. May be repeated, but student may not repeat topic.  
*Spring* *Fee*

**ART1137**

**3 Credits**

**History of Fashion Design**

This course is a study of the history of fashion through the ages — from Egypt and ancient Greece to the present day. Sketching, written assignments and observation will be used to gain knowledge on the subject. *FDU NetID (formerly Webmail) account required.*

**ART2157**

**3 Credits**

**Global Roots of American Architecture**

This survey course introduces students to American architecture with the emphasis on global influences brought by a unique makeup of the population of immigrants. Prerequisite: ENWR1001 Composition I: Rhetoric and Inquiry. Corequisite: ENWR1002 Composition II: Research and Argument.

**ART2238**

**3 Credits**

**The Global Art World**

Via the internet as virtual art world, the purpose of this course is to acquaint students with visual art from around the world. The class will travel the globe to visit museums, galleries and artists. Students will become acquainted with relationships between historical and contemporary work and how it interconnects all continents and countries.

**Art Studios**

**ART1141**

**3 Credits**

**Two-dimensional Design**

Basic elements and principles of two-dimensional design and composition. (Freshman art major foundation.)  
*Fall* *Fee*

**ART1142**

**3 Credits**

**Three-dimensional Design**

Basic elements and principles of three-dimensional design and composition. (Freshman art major

foundation.) Prerequisite: ART1141 Two-dimensional Design.

*Spring* *Fee*

**ART1144**

**3 Credits**

**Color Theory I**

The physical and psychological properties of color and the application of these phenomena in the creative arts.  
*Fee*

**ART1147**

**2 Credits**

**Introduction to Studio Arts I**

Drawing, painting and composition for non-art majors. Basic techniques and practical application of elements and principles of design. (Cannot be counted toward a fine arts major.)  
*Fee*

**ART1151**

**3 Credits**

**General Drawing I**

Basic techniques and concepts in creative drawing from observation and imagination. (Freshman art major foundation.)

**ART1153**

**3 Credits**

**Life Drawing I**

Basic concepts and techniques of drawing the human form through observation of live models. (Freshman art major foundation.)  
*Fee*

**ART1157**

**3 Credits**

**Printmaking I**

Basic printmaking techniques and their aesthetic possibilities. Monoprints, linocuts and wood-blocks.  
*Fee*

**ART1158**

**3 Credits**

**Silk-screen Printing I**

Serigraphy: The artistic use of silk-screen method of printing. Basic techniques of single and multicolored printing.  
*Fee*

**ART1159**

**3 Credits**

**Monotype Printmaking**

This course will explore Monotype technique using Xerox copy transfer, stencil masking, texture transfer, paper collage and brayer method on unique rubber plate and paper lithography. All processes will be demonstrated in class and applied through printing sessions and critiques.  
*Fee*

**ART1161**

**3 Credits**

**Painting I**

Painting in acrylic or oil media. Problems of form, expression and technique.  
*Fall, Spring*

**ART1167**

**3 Credits**

**Collage and Mixed Media**

Constructing works of art from paper and castoff materials, including three-dimensional objects and boxes in assemblage.

**ART1169**

**3 Credits**

**Watercolor Painting I**

Fundamentals of transparent watercolor painting. Stretching, wash techniques and brush manipulation.

**ART1170**

**3 Credits**

**Advertising Design**

Principles of design applied to commercial layouts. (Equivalent to COMM1170 Advertising Design.)

**ART1172**

**3 Credits**

**Designing with Color**

With online lectures, offline reading, uploaded graphics and computing conferences, students will explore the way of using the computer to design with color, developing color schemes and design projects.

**ART1174**

**3 Credits**

**Desktop Publishing I**

Fundamentals of layout, design and typography on the computer. Introduction to publishing on the computer using Quark Xpress®, Adobe® Illustrator® and Adobe® Photoshop®. (Equivalent to COMM1174 Desktop Publishing.)

**ART1177**

**3 Credits**

**Introduction to Digital Media**

Fundamentals of using the computer as a drawing/painting medium. Digitizing, video imaging and manipulation of digital information to create visual art. (Equivalent to COMM1177 Introduction to Digital Media.)

**ART1178**

**3 Credits**

**Multimedia on the Internet**

Fundamentals of interactive design for the web using Macromedia Flash. Useful in multimedia and web design. Three contact hours required for all students. Extended laboratory of two contact hours required for art majors only.

**ART1179****3 Credits****Digital Illustration and Design**

The use of the computer as a primary tool in illustration and design. Extended laboratory for art majors only.

**ART1181****3 Credits****Sculpture I**

Developing perceptual skills through clay, plaster and mixed media.

*Fee***ART1187****3 Credits****Ceramics I**

Clay structure; methods of coil, slab and wheel construction; firing and glazing.

*Fall**Fee***ART1189****3 Credits****Jewelry I**

Basic design concepts and creation in metal jewelry.

**ART1192****3 Credits****Digital Photography I**

Fundamentals of electronic imaging to input photographic materials and manipulate them in a digital environment for creative use and commercial application.

**ART1830****3 Credits****Adobe® Photoshop® for Illustration**

Using Adobe® Photoshop®. Traditional illustration techniques are revised to enable the artist to work directly on the computer.

**ART1832****3 Credits****Alternative Art I**

A study of underground and outsider art forms beyond the scope of the traditional, including body-art (tattoos, piercing, etc.). Performance art, folk art and rituals.

*Winter Session***ART1834****3 Credits****Alternative Art II**

Building on concepts covered in ART1832 Alternative Art I.

**ART1837****3 Credits****Alternative Art III**

Utilizing basic skills covered in ART1832 and ART1834 Alternative Art I and II. Students will be expected to create finished pieces of alternative art.

**ART1838****3 Credits****Elementary Digital Video**

A hands-on class in the creation of short videos utilizing video download to digital files, nonlinear editing and postproduction on the computer. Students will make their own videos from concept to completion. (Equivalent to COMM1838 Elementary Digital Video.)

**ART1841****3 Credits****Pastel Drawing I**

An introduction to drawing techniques using color.

**ART1843****3 Credits****Design for the Web**

Introduction to design issues specific for the web. The course includes an overview of how the internet functions. It covers basic website interactivity and navigation, image adjustment and compression, as well as basics of multimedia on the web.

**ART2182****3 Credits****Wood Sculpture**

Basic shop practices and production for building wood sculpture.

**ART2189****3 Credits****Basic Jewelry II**

Introduction to basic casting techniques and model making for jewelry and small sculpture. Prerequisite: ART1189 Jewelry I or permission of instructor.

**ART2215****3 Credits****Photoshop® for Advertisement and Illustration**

The use of Photoshop® in the creation and manipulation of digital artwork for editorials and advertising in print media. Student projects are modeled after real-world commercial assignments.

**ART2247****2 Credits****Introduction to Studio Arts II**

Sculpture and graphics for nonart majors. Basic techniques. Elements and principles of design applied to three-dimensional forms and printmaking. (Cannot be counted toward a fine arts major.) Prerequisite: ART1147 Introduction to Studio Arts I.

*Fee***ART2253****3 Credits****Life Drawing II**

Continued practice of drawing the human figure through observation of live models. Emphasis

on lectures and outside projects on skeletal and muscular structures. Prerequisite: ART1153 Life Drawing I or permission of instructor.

*Fee***ART2257****3 Credits****Printmaking II**

An extension of and further study of skills and techniques covered in ART1157 Printmaking I. Students will be encouraged to develop their own projects.

**ART2258****3 Credits****Silk-screen Printing II**

Various stencil methods of silk-screen reproduction including photographic film. Techniques of multicolor printing emphasized. Prerequisite: ART1158 Silk-screen Printing I or permission of instructor.

*Fee***ART2261****3 Credits****Painting II**

Continuation of ART1161 Painting I. Prerequisite: ART1141 Two-dimensional Design, ART1161 Painting I or permission of instructor.

**ART2269****3 Credits****Watercolor Painting II**

Advanced techniques in water-soluble media. Emphasis on original procedures for painting various subjects including still life and landscape. Prerequisite: ART1169 Watercolor Painting I or permission of instructor.

**ART2271****3 Credits****Adobe® After Effects: Broadcast Graphics**

This course is an introduction into the world of broadcast motion graphics for television and the web using an industry-leading software, Adobe® After Effects. Students learn basic animation techniques while creating short movies — animated logos, titles and openings.

**ART2274****3 Credits****Computer 3-Dimensional Modeling**

Students will learn the design aspects of creating three-dimensional graphics for broadcast applications and design tools for creating virtual sets.

**ART2275****3 Credits****Computer Animation II**

Continuation of animation principles with a focus on three-dimensional animation.

# Art

University College: Arts • Sciences • Professional Studies  
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## ART2277

3 Credits

### Illustration

Book, magazine, editorial, advertising and humorous illustration. Prerequisite: ART1151 General Drawing I, ART1153 Life Drawing I or ART1161 Painting I, ART1169 Watercolor Painting I or permission of instructor.

## ART2281

3 Credits

### Sculpture II

Continued problems in three-dimensional art using clay, plaster and mixed media. Prerequisite: ART1142 Three-dimensional Design or ART1181 Sculpture I.

*Fee*

## ART2287

3 Credits

### Ceramics II

Advanced problems on potter's wheel and additional work in glazing and firing. Prerequisite: ART1187 Ceramics I or permission of instructor.

*Fee*

## ART2294

3 Credits

### 2-D Computer Animation

Development of storyboards and characters, introduction of two-dimensional animation on the computer for online games and short movies.

## ART2295

3 Credits

### 3D Computer Animation

Fundamentals of creating three-dimensional animation from conception to final presentation on the computer. (Equivalent to COMM1175 Computer Animation I.)

## ART2648

3 Credits

### Basic Video Editing

Introductory video/audio editing techniques, procedures and theory. A hands-on approach utilizing nonlinear video-editing equipment to edit video projects. Corequisite: ART2649 Basic Video Editing Laboratory. (Equivalent to COMM2648 Basic Video Editing.)

## ART2649

0 Credits

### Basic Video Editing Laboratory

Video/audio editing with the professional AVID digital nonlinear editing system. These labs will emphasize a hands-on approach in the editing of video projects. Corequisite: ART2648 Basic Video Editing.

## ART2675

3 Credits

### Basic Video Production

Classroom and hands-on field production course introducing students to the principles and prac-

tices of video/digital production and postproduction. This includes camera shooting and digital video editing. (Equivalent to COMM2673 Basic Video Production.)

## ART2841

3 Credits

### Pastel Drawing II

This course builds on the basic media and color techniques of ART1841 Pastel Drawing I and includes experimental pastel techniques.

Prerequisite: ART1841 Pastel Drawing I.

## ART3255

3 Credits

### Drawing for Animation II

Using two-dimensional animation, advanced cell drawing and storyboarding to make an animation. Prerequisite: ART2294 2-D Computer Animation.

## ART3352

3 Credits

### General Drawing III

Advanced exploration of both the students' environment and selected drawing media.

## ART3353

3 Credits

### Life Drawing III

Advanced media and techniques in drawing human figures from live models. Emphasis on expressive content, form and style. Prerequisites: ART1153 Life Drawing I and ART2253 Life Drawing II.

*Fee*

## ART3361

3 Credits

### Painting III

Solutions to problems of form and content in painting through individual creative development. Prerequisite: ART2261 Painting II or permission of instructor.

## ART3372

3 Credits

### Motion Graphics: Broadcast and Web Animation

Working with Adobe® After Effects and Macromedia Flash, students will explore computer animation and motion graphics. Students will produce animations that can be recorded onto video or exported to the web.

## ART3387

3 Credits

### Ceramics III

Continued problems in clay. Prerequisite: ART2287 Ceramics II or permission of instructor.

*Fee*

## ART3675

3 Credits

### Advanced Video Production

The study of video/digital preproduction, production and postproduction with an emphasis on professional techniques, procedures and theory. (Equivalent to COMM3675 Advanced Video Production.)

## ART3749

3 Credits

### Advanced Video Editing

This is a project-oriented, hands-on course that emphasizes enhanced editing techniques, procedures and theory. Prerequisite: ART2648 Basic Video Editing. (Equivalent to COMM3749 Advanced Video Editing.)

## ART4450-ART4449

1-3 Credits

### Selected Studies in Art

Studies in an area of art.

## ART4472

3 Credits

### Senior Seminar

Preparation for the extensive exploration of a specific topic in one's area of concentration under the guidance of a faculty mentor.

## ART4473

3 Credits

### Senior Project

Extensive exploration of a specific topic in one's area of concentration under the guidance of a faculty mentor.

## ART4475, ART4476

Variable Credits

### Honors Art

Independent study in art for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

## ART4498

3 Credits

### Internship in Art

Consult with department for further information. Prerequisites: upper-division standing and permission of school director or internship adviser. Maximum of 6 hours for all internships.

## ART4821

3 Credits

### Portfolio

Students will learn to prepare a professional portfolio for presentation after college. Portfolios for specialized needs will be addressed.

# Biological Sciences

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

## Biological Sciences

School of Natural Sciences

### Courses for Nonmajors

**BIOL1001**

3 Credits

Lecture 2 hours

#### Principles of Modern Biology

Basic principles of biology using evolution as the unifying theme of a study of biologically important chemicals, structure and functions of cells, organisms, plants and animals. The interactions of individuals and populations are examined to understand humanity's impact on the environment. Corequisite: BIOL1011 Laboratory: Principles of Modern Biology.

Fall, Spring

**BIOL1011**

0 Credits

Laboratory 2 hours

#### Laboratory: Principles of Modern Biology

Scientific method, microscopy, cells, cell structure, function, division, osmosis, diffusion, tests for carbohydrates, fats, proteins, chlorophyll analysis for pigments, Mendelian genetics, study of animal and plant tissues with organization and dissection of a small vertebrae. Corequisite: BIOL1001 Principles of Modern Biology.

Fee

**BIOL1060**

3 Credits

Lecture 2 hours

#### Genetics and Society

An introduction to genetics with emphasis on the impact of new developments in genetic technology on the individual and on society. Transmission of genes in families, genetic counseling and reproductive decisions, treatment and diagnosis of inherited disease, genes in populations. Current topics such as cloning, stem cell research and genetically modified foods will be discussed. Corequisite: BIOL1061 Laboratory: Genetics and Society.

**BIOL1061**

0 Credits

Laboratory 2 hours

#### Laboratory: Genetics and Society

Laboratory exercises supplementary to concepts examined in BIOL1060 Genetics and Society. Corequisite: BIOL1060 Genetics and Society.

Fee

**BIOL1105**

3 Credits

Lecture 2 hours

#### The Human Environment

Includes interaction among the biological, chemical and physical topics, population growth, technological change, resource availability and pollution problems. Corequisite: BIOL1115 Laboratory: The Human Environment.

**BIOL1106**

3 Credits

Lecture 2 hours

#### Over-the-Counter Drugs

Characteristics and development of nonprescription drugs. Mechanisms of action of over-the-counter medications. Effects on major body systems. Interactions with prescription medications, food supplements and herbs. Side effects and contraindications. Over-the-counter medications in the media and sports. Corequisite: BIOL1116 Laboratory: Over-the-Counter Drugs.

**BIOL1115**

0 Credits

Laboratory 2 hours

#### Laboratory: The Human Environment

Experiments illustrating the topics discussed in BIOL1105 The Human Environment. Corequisite: BIOL1105 The Human Environment.

Fee

**BIOL1116**

0 Credits

Laboratory 2 hours

#### Laboratory: Over-the-Counter Drugs

Laboratory investigations of the effects of over-the-counter medications on living systems. Corequisite: BIOL1106 Over-the-Counter Drugs.

Fee

**BIOL2125**

4 Credits

Lecture 3 hours

#### Microbiology for the Health Sciences

Introduction to microbial world, bacteriology, virology, mycology, parasitology and immunology. Suitable for students planning a career in health sciences. Prerequisites: CHEM1107 Chemistry for Health Sciences and CHEM1117 Laboratory: Chemistry for Health Sciences. Corequisite: BIOL2126 Laboratory: Microbiology for the Health Sciences.

**BIOL2126**

0 Credits

Laboratory 2 hours

#### Laboratory: Microbiology for the Health Sciences

Isolation and identification of common pathogenic and nonpathogenic organisms, staining,

culturing, fermentation reactions and microscopic examinations. Prerequisites: CHEM1107 Chemistry for Health Sciences and CHEM1117 Laboratory: Chemistry for Health Sciences. Corequisite: BIOL2125 Microbiology for the Health Sciences.

Fee

**BIOL2203, BIOL2223**

4 Credits

Lecture 3 hours; Laboratory 2 hours

#### Human Anatomy and Physiology I

Study of organ systems of the human body. The cells, tissues, integumentary system, skeletal system, articulations, muscular system, nervous system and special senses. Required of students in the nursing program.

Fee

**BIOL2204, BIOL2224**

4 Credits

Lecture 3 hours; Laboratory 2 hours

#### Human Anatomy and Physiology II

Study of organ systems of the human body. Circulatory system, lymphatic system, urinary system, endocrine system, male and female reproductive systems and embryonic development. Required of students in the nursing program. Prerequisite: BIOL2203, BIOL2223 Human Anatomy and Physiology I.

Fee

### Courses for Students in the Sciences

**BIOL1251**

3 Credits

Lecture 3 hours

#### General Biology I

Modern biological principles and processes relating to organismal diversity, evolution, ecology and behavior. Corequisite: BIOL1253 Laboratory: General Biology I.

**BIOL1252**

3 Credits

Lecture 3 hours

#### General Biology II

Modern biological principles and processes relating to organismal diversity, evolution, ecology and behavior. Cell structure and function, cell metabolism and genetics biochemistry will be covered. Corequisite: BIOL1254 Laboratory: General Biology II.

**BIOL1253**

1 Credit

Laboratory 3 hours

#### Laboratory: General Biology I

Experiments illustrating the topics discussed in BIOL1251 General Biology I. Corequisite: BIOL1251 General Biology I.

Fee

# Biological Sciences

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## BIOL1254

1 Credit

Laboratory 3 hours

### Laboratory: General Biology II

Experiments illustrating the topics discussed in BIOL1252 General Biology II. Corequisite: BIOL1252 General Biology II.

*Fee*

## Courses for Majors

## BIOL1210

3 Credits

Lecture 2 hours

### Introduction to Aquaculture and Hydroponics

An introduction to aquaculture and hydroponics to illustrate the practices of biological sustainability. Discussions will focus on the biological requirements of aquaculture organisms and the engineering requirements of typical manmade flowing-water systems. Mathematical models and calculations will be employed to create sustainable business models for aquaculture and hydroponics. Corequisite: BIOL2121 Lab: Introduction to Aquaculture and Hydroponics.

## BIOL2121

0 Credits

Laboratory 2 hours

### Lab: Introduction to Aquaculture and Hydroponics

Experiments illustrating the topics discussed in BIOL2120 Introduction to Aquaculture and Hydroponics. Corequisite: BIOL2120 Introduction to Aquaculture and Hydroponics.

## BIOL2150

0 Credits

Laboratory 4 hours

### Laboratory: Ecology and Field Biology

Fieldwork illustrating the topics discussed in BIOL2250 Ecology and Field Biology. Corequisite: BIOL2250 Ecology and Field Biology.

*Fee*

## BIOL2210

4 Credits

Lecture 2 hours

### Genetics

Study of transmission of inherited characteristics, the structure and function of the genetic material, mutation, manipulations of genetic material by recombinant DNA techniques and their applications, genomics, proteomics, population genetics and evolution. Prerequisites: BIOL1251 General Biology I; BIOL1252 General Biology II; BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II; CHEM1201, CHEM1203 General Chemistry I; CHEM1202, CHEM1204 General Chemistry II. Corequisite: BIOL2211 Laboratory: Genetics.

## BIOL2211

0 Credits

Laboratory 4 hours

### Laboratory: Genetics

Laboratory exercises emphasize experimental design and methods and enhance understanding of principles of genetics through problem solving. Prerequisites: BIOL1251 General Biology I; BIOL1252 General Biology II; BIOL1253 Laboratory: General Biology I; BIOL1254 Laboratory: General Biology II, CHEM1201, CHEM1203 General Chemistry; and CHEM1202, CHEM1204 General Chemistry II. Corequisite: BIOL2210 Genetics.

## BIOL2257, BIOL2259

4 Credits

Lecture 3 hours; Laboratory 2 hours

### Human Structure and Function I

Study of the structure and adaptive homeostatic control of organ systems. Contemporary problems in the environmental and health sciences are related to the human body. Laboratory includes organ dissection. Open to sophomore and junior biology majors. Prerequisites: BIOL1251 General Biology I and BIOL1253 Laboratory: General Biology I.

*Fall, Spring*

*Fee*

## BIOL2250

4 Credits

Lecture 2 hours

### Ecology and Field Biology

Relationships of organisms and their environment. Ecosystem analysis including study of abiotic components, organisms, population dynamics and community structure. Corequisite: BIOL2150 Laboratory: Ecology and Field Biology.

*Fee*

## BIOL2300

3 Credits

### Experimental Design

This course examines the scientific research process, with hands-on exercises in statistical data analysis and the analysis of original research procedure using Excel, SAS and SPSS technologies. The analysis of experimental design in original research papers is through the identification of experimental variables, graphical representations, statistical techniques, data interpretation and research theses. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I and BIOL1254 Laboratory: General Biology II.

## BIOL3225

4 Credits

Lecture 2 hours

### General Microbiology

Introduction to microorganisms' structure, biochemistry, genetics and physiology and their interactions with animals and other organisms. Prerequisites: BIOL1251 General Biology I,

BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II, CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM1203 General Chemistry Laboratory I, CHEM1204 General Chemistry Laboratory II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, CHEM2263 Organic Chemistry Laboratory I and CHEM2264 Organic Chemistry Laboratory II. Corequisite: BIOL3226 Laboratory: General Microbiology.

## BIOL3226

0 Credits

Laboratory 4 hours

### Laboratory: General Microbiology

Isolation and identification of common pathogenic and nonpathogenic organisms utilizing staining, culturing, biochemical analysis and microscopic inspection. BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II, CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, CHEM2263 Organic Chemistry Laboratory I and CHEM2264 Organic Chemistry Laboratory II. Corequisite: BIOL3225 General Microbiology.

*Fee*

## BIOL3345

3 Credits

Lecture 3 hours

### Molecular Genetics

Structure and function of genomes and proteomes. Experimental manipulation of macromolecules including restriction mapping, cloning and identification of recombinant molecules. Applications in research, medicine, agriculture and forensics. Gene mining for pharmacogenomics and gene therapy. Use of internet databases. Ethical, legal and social issues. Prerequisites: BIOL2210 Genetics and BIOL2211 Laboratory: Genetics.

*Fall, Spring*

## BIOL3357

4 Credits

Lecture 3 hours

### Human Structure and Function II

Intensive study of the structure and function and adaptive homeostatic control of organ systems. Emphasis will be on problem-solving techniques and applications of concepts to clinical situations. Prerequisites: BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; and BIOL2257, BIOL2259 Human Structure and Function I. Corequisite: BIOL3358 Laboratory: Human Structure and Function II.

*Fall, Spring*



# Biological Sciences

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**BIOL3358****0 Credits****Laboratory 2 hours****Laboratory: Human Structure and Function II**

Laboratory exercises include the study of physiological control mechanisms. Emphasis will be on basic physiological principles covering muscular, cardiovascular, pulmonary and central nervous system. Prerequisites: BIOL1251, BIOL1253 General Biology I; and BIOL1252, BIOL1254 General Biology II. Corequisite: BIOL3357 Human Structure and Function II. *Spring*

**BIOL3417****3 Credits****Lecture 3 hours****Introduction to Recombinant DNA**

DNA structure and function, methods of creating and cloning recombinant DNA molecules in prokaryotic and eukaryotic systems and applications of these manipulations in biology, medicine, agriculture and industry.

**BIOL4000****1 Credit****Curricular Practical Training**

A curricular practical training (CPT) requirement for work experience course/independent study registration in most academic programs at FDU. The training experience is integral to the course, and the detailed course objectives will be on a separate independent study proposal form. The student's work or training experience will be: part-time (20 hours or less per week) or full-time (more than 20 hours per week). A non-letter grade of "P" for Pass or "NC" for No Credit will be applied to degree audit as this course will be excess credit and not counted toward a degree requirement.

**BIOL4220****4 Credits****Lecture 2 hours****Histology**

Understanding of normal microscopic form and function of human tissues through lectures and discussions which require introduction to microscopic techniques and microscopic work. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II. Corequisite: BIOL4221 Laboratory: Histology.

**BIOL4221****0 Credits****Laboratory 4 hours****Laboratory: Histology**

Microscopic analysis of the structure of normal human and animal tissues as related to their functions. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I,

BIOL1254 Laboratory: General Biology II.

Corequisite: BIOL4220 Histology.

*Fee***BIOL4235****4 Credits****Lecture 2 hours****Developmental Biology**

Life cycles and the evolution of developmental patterns, principles of experimental embryology, genes and development techniques and ethical issues, genetic core of development, differential gene expression, cell-to-cell communication in development. Prerequisites: BIOL1251 General Biology I and BIOL1253 Laboratory: General Biology I. Corequisite: BIOL4236 Laboratory: Developmental Biology.

**BIOL4236****0 Credits****Laboratory 4 hours****Laboratory: Developmental Biology**

Examining early and late embryonic development in selected invertebrates, amphibians, fish, birds and mammals in addition to metamorphosis, regeneration and aging as related to environmental regulation of animal development and mechanisms of evolutionary change. Prerequisites: BIOL1251 General Biology I and BIOL1253 Laboratory: General Biology I. Corequisite: BIOL4235 Developmental Biology.

*Fee***BIOL4240****4 Credits****Lecture 2 hours****Molecular Cell Biology**

This course investigates the central concept of gene expression, DNA to RNA to protein and cell structure/function by integrating structure/function of biomolecules, biotechnology/molecular techniques, regulatory mechanisms for gene expression, protein targeting, signals/signal transduction pathways, cell cycle, cell/extracellular matrix organization, stem cells, cell birth, cell death and cancer. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II. Corequisite: BIOL4241 Laboratory: Molecular Cell Biology.

**BIOL4241****0 Credits****Laboratory 4 hours****Laboratory: Molecular Cell Biology**

Experiments illustrating the topics discussed in BIOL4240 Molecular Cell Biology. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II. Corequisite: BIOL4240 Molecular Cell Biology.

*Fee***BIOL4405****3 Credits****Lecture 3 hours****Ethics in Science**

Studies relating to the ethical application of advances in sciences to humans, other living organisms, ecosystems and the planet. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I and BIOL1254 Laboratory: General Biology II.

**BIOL4414****3 Credits****Lecture 2 hours****Animal Behavior**

Principles of animal behavior. History, methods, genetics, evolution, physiology of biological rhythms, learning, communication, migration, habitat selection and foraging. Corequisite: BIOL4415 Laboratory: Animal Behavior.

**BIOL4415****1 Credit****Laboratory 4 hours****Laboratory: Animal Behavior**

Experiments illustrating the topics discussed in BIOL4414 Animal Behavior. Corequisite: BIOL4414 Animal Behavior.

*Fee***BIOL4420****3 Credits****Lecture 3 hours****Evolution**

Evolutionary biology at all levels of organization (molecular to societal). Established principles of evolution, why and how evolutionary reasoning follows from the scientific method. Prerequisites: BIOL2210, BIOL2211 Genetics and MATH1201 Calculus I.

**BIOL4432****3 Credits****Selected Studies in Biology**

Recent developments in special fields of biology.

**BIOL4476, BIOL4875****Variable Credits****Honors Biology**

Independent study in biology for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

**BIOL4800****1-3 Credits****Independent Study**

Independent study under the direction of a faculty member after consultation with the school director.

*Fee*

# Chemistry

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## BIOL4803

3 Credits

### Research in Biological Sciences I

This course will explore a specific topic within either ecology and environmental biology, cell and molecular biology, anatomy and physiology and microbiology or biochemistry. Using a project-based approach, the course progresses from a survey of basic lab techniques to the application of current techniques in the specific areas of study. Topics will change with each course offering and will be chosen for their relevance and importance within the field.

## BIOL4804

1–4 Credits

### Research in Biological Sciences II

This course is a continuation of a topic initiated in BIOL4803 Research in Biological Sciences I. This course will explore a specific topic within either ecology and environmental biology, cell and molecular biology, anatomy and physiology and microbiology or biochemistry using a project-based approach, where students master the application of current techniques in the specific area of study. Topics will change with each course offering and will be chosen for their relevance and importance within the field.

Prerequisite: BIOL4803 Research in Biological Sciences I.

## BIOL4855

4 Credits

Lecture 3 hours

### Molecular Biology Techniques

The concepts of molecular techniques including DNA isolation and analysis (DNA isolation, plasmid preparation, spectrophotometry, agarose gel electrophoresis, southern blotting, DNA profiling); RNA isolation and analysis (chromatography, RT-PCR, microarrays); protein expression (ELISA, polyacrylamide gel electrophoresis, western blotting); and genomic cloning, screening, sequencing and bioinformatics (expression vectors, databases). Corequisite: BIOL4856 Lab: Molecular Biology Techniques.

## BIOL4856

0 Credits

Laboratory 2 hours

### Lab: Molecular Biology Techniques

Experiments illustrating the topics discussed in BIOL4855 Molecular Biology Techniques. Corequisite: BIOL4855 Molecular Biology Techniques.

*Fee*

## BIOL4900, BIOL4901

1 Credit Each Semester

### Biology Seminar I and II

A series of lectures by invited speakers on topics of current interest. Exposure of students to research developments and techniques in selected areas of specialization.

## Graduate Courses

Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the school director. A list of courses and descriptions is contained in the *Graduate Studies Bulletin*.

# Chemistry

## School of Natural Sciences

### Courses for Nonmajors

## CHEM1107

4 Credits

Lecture 3 hours

### Chemistry for Health Sciences

Chemical principles with examples taken from health sciences. Organic compounds significant for the medical field and biochemical processes with human focus. Corequisite: CHEM1117 Laboratory: Chemistry for Health Sciences.

*Fall, Spring*

## CHEM1117

0 Credits

Laboratory 2 hours

### Laboratory: Chemistry for Health Sciences

Illustration of the principles discussed in CHEM1107 Chemistry for Health Sciences. Corequisite: CHEM1107 Chemistry for Health Sciences.

*Fall, Spring*

*Fee*

## CHEM1118, CHEM1119

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Forensic Science

The forensic analysis of substances such as glass, bullets and drugs will be discussed along with the basic, analytical and organic chemistry on which they are based.

## CHEM1135

3 Credits

Lecture 2 hours

### Science and Art

The science of materials used in painting, sculpture and graphic arts. Conservation, restoration, detection of art forgeries. Corequisite: CHEM1136 Laboratory: Science and Art.

## CHEM1136

0 Credits

Laboratory 2 hours

### Laboratory: Science and Art

Experiments illustrating the topics discussed in CHEM1135 Science and Art. Corequisite: CHEM1135 Science and Art.

*Fee*

## CHEM1201, CHEM1202

6 Credits (3 Credits Each Semester)

Lecture 3 hours each semester

### General Chemistry I, II

The fundamental laws, theories and principles of chemistry, with emphasis on atomic structure, chemical bonding, periodic classification of the elements, solutions, equilibrium, reaction kinetics and the theory and practice of the qualitative chemistry of the common ions. Prerequisites: elementary algebra and for CHEM1202 General Chemistry II grade of C- or higher in CHEM1201 General Chemistry I. Corequisites: CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

*Fall, Spring, Summer*

## CHEM1203, CHEM1204

2 Credits (1 Credit Each Semester)

### General Chemistry Laboratory I, II

Practical applications of the fundamental laws, theories and principles of chemistry through problem solving and laboratory experiments. Prerequisite: elementary algebra. Corequisites: CHEM1201, CHEM1202 General Chemistry I, II.

*Fall, Spring, Summer*

*Fee*

### Courses for Majors

## CHEM2211

3 Credits

Lecture 3 hours

### Inorganic Chemistry I

Principles of atomic and molecular structure, stereochemistry, periodicity and bonding, with emphasis on the main group elements and their descriptive chemistry. Also covers topics such as hydrogen bonding, acid-based chemistry, inorganic polymers, geochemistry and metallic bonding. Prerequisites: CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I.

*Fall*

## CHEM2261, CHEM2262

6 Credits (3 Credits Each Semester)

Lecture 3 hours each semester

### Organic Chemistry I, II

Structure and chemical properties of aliphatic and aromatic compounds of carbon, with emphasis on electronic theory, mechanisms of reaction and principles of synthesis. Prerequisites: CHEM1202, CHEM1204 General Chemistry II and for CHEM2262 Organic Chemistry II grade of C- or higher in CHEM2261 Organic Chemistry I. Corequisites: CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II.

*Fall, Spring, Summer*

## CHEM2263, CHEM2264

4 Credits (2 Credits Each Semester)

Laboratory 4 hours each semester

### Organic Chemistry Laboratory I, II

A laboratory course taken concurrently with CHEM2261, CHEM2262 Organic Chemistry I,

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II, which illustrates important principles of structure and reactivity, synthesis and analysis of organic compounds. Corequisites: CHEM2261, CHEM2262 Organic Chemistry I, II.  
*Fall, Spring, Summer* *Fee*

**CHEM3251, CHEM3252****4 Credits****Lecture 2 hours; Laboratory 4 hours****Analytical Chemistry**

Theoretical principles of quantitative analysis with applications to gravimetric and volumetric methods. Prerequisite: CHEM1202, CHEM1204 General Chemistry II.  
*Fall* *Fee*

**CHEM3241****3 Credits****Lecture 3 hours****Physical Chemistry I**

The principles of physical chemistry from the molecular and microscopic aspects; kinetic theory, quantum mechanics, spectroscopic studies and statistical concepts; thermodynamics, chemical phase equilibria, electrolytes and electrochemistry. Prerequisites: CHEM2262, CHEM2264 Organic Chemistry II and MATH2202 Calculus II. Corequisite: CHEM3243 Physical Chemistry Laboratory I.  
*Fall*

**CHEM3242****3 Credits****Lecture 3 hours****Physical Chemistry II**

The principles of physical chemistry from the molecular and microscopic aspects; kinetic theory, quantum mechanics, spectroscopic studies and statistical concepts; thermodynamics, chemical phase equilibria, electrolytes and electrochemistry. Prerequisites: CHEM3241, CHEM3243 Physical Chemistry I. Corequisite: CHEM3244 Physical Chemistry Laboratory II.  
*Spring*

**CHEM3243, CHEM3244****4 Credits (2 Credits Each Semester)****Laboratory 4 hours each semester****Physical Chemistry Laboratory I, II**

Laboratory experiments demonstrating fundamental laws, concepts and mathematically derived relationships involving selected physico-chemical properties of matter and energy. Corequisites: CHEM3241, CHEM3242 Physical Chemistry I, II.  
*Fall, Spring* *Fee*

**CHEM3281****3 Credits****Lecture 3 hours****Biochemistry I**

Chemistry of substances of biological significance, with particular emphasis on proteins, enzymes, nucleic acids, sugars, lipids, hormones and vitamins. Prerequisite: CHEM2262,

CHEM2264 Organic Chemistry II.

*Fall, Spring***CHEM3282****3 Credits****Lecture 3 hours****Biochemistry II**

Study of metabolism, storage and expression of genetic information and other current aspects of

**CHEM4000****1 Credit****Curricular Practical Training**

A curricular practical training (CPT) requirement for work experience course/independent study registration in most academic programs at FDU. The training experience is integral to the course and the detailed course objectives will be on a separate independent study proposed form. The student's work or training experience will be: part-time (20 hours or less per week) or full-time (more than 20 hours per week). A non-letter grade of "P" for Pass or "NC" for No Credit will be applied to degree audit as this course will be excess credit and not counted toward a degree requirement.

**CHEM4233****3 Credits****Lecture 3 hours****Instrumental Analysis**

Theory and applications of absorption, emission and interpretative spectroscopy, electrochemistry and chromatography to problems of chemical analysis. Introduction to interfacing, data acquisition and data manipulations.  
*Spring*

**CHEM4234****2 Credits****Laboratory 4 hours****Instrumental Analysis Laboratory**

Practical laboratory experiments in absorption, emission and interpretative spectroscopy electroanalytical methods, chromatography and elementary interfacing.  
*Spring* *Fee*

**CHEM4314, CHEM3314****3 Credits****Lecture 2 hours; Laboratory 2 hours****Inorganic Chemistry II**

Application of molecular orbital theory, solid state theory and ligand field theory to inorganic systems with emphasis on the properties and reactions of compounds of the transition elements. Laboratory demonstration of current techniques of preparing and characterizing inorganic compounds.  
*Spring* *Fee*

**CHEM4430****1–3 Credits Each Semester****Selected Studies in Chemistry**

Recent developments in special fields of chemistry.  
*Fall, Spring*

**CHEM4800****1–3 Credits Each Semester****Independent Study in Chemistry**

An individual research project undertaken under a faculty supervisor. A final research report must be submitted. Open only to upper-level students.  
*Fall, Spring*

**Graduate Courses**

Graduate courses may be taken by seventh- or eighth-semester students with the approval of the school director. A list of courses and descriptions is contained in the *Graduate Studies Bulletin*.

**Chinese****School of the Humanities****CHIN1009****3 Credits****Basic Chinese for Business Purposes**

This course is designed to support students enrolled in internships in China who want to use Chinese as a tool to communicate with the Chinese people, especially for business purposes. Such students are assumed to have no previous background in Mandarin. The course will focus on business Chinese, as well as some useful words and expressions for the daily life. Listening and speaking skills are emphasized and extensively practiced in the classroom.

**CHIN1101****3 Credits****Elementary Chinese I**

Selections that encourage conversation, reading and writing.

**CHIN1102****3 Credits****Elementary Chinese II**

Continuation of CHIN1101 Elementary Chinese I. Prerequisite: CHIN1101 Elementary Chinese I or equivalent.

**Civil Engineering****Lee Gildart and Oswald Haase****School of Computer Sciences and Engineering****CENG1205****3 Credits****Lecture/Laboratory 4 hours****Surveying I**

The first of a two-course sequence in surveying as applied to the construction industry. Such areas as layout and control of buildings and roads, earthwork measurements, horizontal and vertical curves, superelevation on curves, computer applications to surveying and electronic measurements will be studied. Prerequisite: MATH1107 Precalculus or equivalent.  
*Fall*

# Civil Engineering

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## CENG1206

3 Credits

Lecture/Laboratory 4 hours

### Surveying II

The second of a two-course sequence in surveying as applied to the construction industry. Such areas as layout and control of buildings and roads, earthwork measurements, horizontal and vertical curves, superelevation on curves, computer applications to surveying and electronic measurements will be studied. Prerequisite: CENG1205 Surveying I.

Spring

## CENG1245

3 Credits

Lecture/Laboratory 4 hours

### Construction Materials and Systems

An introduction to the methods, equipment and personnel employed in constructing buildings and subsystems of buildings such as foundations, walls, floors and roofs. The types and physical properties of construction materials.

Fall

## CENG3250

3 Credits

### Structural Analysis

Classical analysis methods of determinate and indeterminate structures. Deflection calculation of beams and trusses, work-energy methods, influence line concept for moving loads.

Prerequisite: ENGR2228 Strength of Materials.

Fall

## CENG3256

3 Credits

### Steel Structures

The application of the principles of statics and strength of materials in the design and analysis of structural steel beams, columns, trusses and frames, connections and base plates, all in accordance with current AISC (American Institute of Steel Construction) specifications. Prerequisite: CENG3250 Structural Analysis or permission of instructor.

Fall

## CENG3257

3 Credits

### Concrete Structures

The analysis and design of reinforced concrete beams, girders, slabs and columns, all in accordance with current ACI (American Concrete Institute) code and standards. Corequisite: CENG3250 Structural Analysis.

## CENG3260

3 Credits

Lecture/Laboratory 4 hours

### Environmental Engineering

Water and water-resources management in natural and urban areas. Design and management of facilities for water supply and wastewater treatment, development of watersheds, hydrographs, flow routing, stormwater quality and

quantity control and other topics related to water resources. Utilization of water resources simulating models and tools, including Arc-GIS, HEC-HMS and HEC-RAS. Prerequisite: ENGR4254 Fluid Mechanics.

Spring

## CENG3261

3 Credits

### Estimating I

The development of a procedure (including check and balance) for preparing a quantity survey of materials, labor and equipment for both general and specialty contractors. Prerequisite: MATH1107 Precalculus or equivalent.

Fall

## CENG3270

3 Credits

### Environmental and Land-use Planning

Environmental laws and pollution, environmental-impact analysis, land-usage laws and economics will be covered. Prerequisite: ENGR1301 Engineering Practices, Graphics and Design.

Spring

## CENG4241

3 Credits

Lecture/Laboratory 4 hours

### Soil Mechanics

The mechanics of soil and rock masses as applied to construction, with emphasis on footing and pile foundations, retaining walls, bulkheads, fills, embankments and the control of landslides. Identification, classification and testing of the physical properties of soils.

Prerequisite: ENGR2228 Strength of Materials.

Fall

## CENG4242

3 Credits

### Foundations

Design of concrete and reinforced concrete footings and foundations and retaining walls. Bearing, friction and combined pile, pile caps and sheet piling. Prerequisite: CENG4241 Soil Mechanics.

Spring

## CENG4260

3 Credits

### Contracts and Specifications

A study of codes and specifications required in engineering contracts. General contracts, sub-contracts, constructions management contracts. Contract law. Prerequisites: CENG1245 Construction Materials and Systems and ENGR2210 Technical Communications.

Spring

## CENG4272

3 Credits

Lecture/Laboratory 4 hours

### Advanced Steel Design

Design of a complete structural steel-frame building including beams, floors, columns and

connections; preparing design notes, structural drawings and shop drawings in accordance with codes, industry standards and AISC (American Institute of Steel Construction). LRFD (Load and Resistance Factor Design) method used. Prerequisite: CENG3256 Steel Structures.

Spring

## CENG4276

3 Credits

### Advanced Concrete Design

Design of a complete reinforced concrete building including beams, girders, slabs, columns and footings; preparing set of design notes, structural drawings and shop drawings. All in accordance with codes, industry standards and ACI (American Concrete Institute). Prerequisite: CENG3257 Concrete Structures.

Spring

## CENG4280

3 Credits

### Finite Element Analysis

Formulation and assembly of finite-element matrices in one- and two-dimensional problems. Modeling and practical applications in truss, beam and frame structures, heat conduction and linear elasticity. Practice in the use of computer programs. Prerequisites: ENGR2228 Strength of Materials and MATH3220 Linear Algebra.

Spring

## CENG4320

3 Credits

### Transportation Engineering

Highway and urban transportation systems. Organizations and associations. Planning. Driver, vehicle, traffic and road alignment, sight distances. Intersection and interchange design. Drainage details. Earthwork: calculations of volumes. Materials for roads and surfaces, bearing qualities. Computer applications. Term and laboratory projects assigned. Prerequisites: CENG1205 Surveying I and CENG4241 Soil Mechanics.

Spring

## CENG4321

3 Credits

### Bridge Design

Loads. Maximum moments and shear in simple and continuous spans. Steel bridges: floor systems, concrete and steel floors. Beam and plate-girder bridges. Truss, concrete and prestressed concrete bridges. Railing design. Railroad bridges. Steel-plate-deck bridges, economic considerations. Box girders. Computer applications. Term project assigned. Prerequisite: CENG3250 Structural Analysis.

## CENG4385

3 Credits

### Senior Design Project

Students work on capstone design projects using the knowledge gained through past course work, following professional practice, applying

# Communication

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design methodologies and exercising sound engineering judgment. Prerequisites: Senior standing and ENGR2210 Technical Communications.  
*Spring*

## Communication

### School of Art and Media Studies

#### COMM1000

3 Credits

##### Digital Storytelling

This course explores the practice of reporting across media platforms. The instruction allows students to construct narratives using a mix of text, photography, audio, video and graphics. The course emphasizes development of multi-media offerings for online presentation.

#### COMM1101

3 Credits

##### Mass Media: Image, Sound and Text

The process and social effects of mass communication in historical and contemporary settings. The impacts of print media, such as newspapers, magazines and books, and electronic media, such as radio, movies, television and the internet, are examined.

#### COMM1105

3 Credits

##### Intercultural Communication

Focuses on cultures and subcultures as well as their impact on perception, communication and behavior. Explores similarities and differences between cultures and barriers to intercultural communication. Examines principles of and skills in effective communicating and intercultural settings.

#### COMM1106

3 Credits

##### Interpersonal Communication

Basic concepts of human communication; the observation and analysis of sending and receiving verbal and nonverbal messages.

#### COMM1131

3 Credits

##### History of Graphic Design and Illustration

A survey of visual communication systems from early global civilization through book and magazine illustration and poster and advertising art from the 19th century to the present. (Equivalent to ART1131 History of Graphic Design and Illustration.)

#### COMM1170

3 Credits

##### Advertising Design

Principles of design applied to commercial layouts. (Equivalent to ART1170 Advertising Design.)

#### COMM1174

3 Credits

##### Desktop Publishing

Fundamentals of layout, design and typography on the computer. Introduction to publishing on the computer using Quark Xpress®, Adobe® Illustrator® and Adobe® Photoshop®. (Equivalent to ART1174 Desktop Publishing I.)

#### COMM1175

3 Credits

##### Computer Animation I

Fundamentals of creating two- and three-dimensional animation from conception to final presentation on the computer. (Equivalent to ART2295 3D Computer Animation.)

#### COMM1177

3 Credits

##### Introduction to Digital Media

Fundamentals of using the computer as a drawing/painting medium. Digitizing, video imaging and manipulation of digital information to create visual art. (Equivalent to ART1177 Introduction to Digital Media.)

#### COMM1838

3 Credits

##### Elementary Digital Video

A hands-on class in the creation of short videos utilizing video download to digital files, nonlinear editing and post-production use on the computer. Students will make their own videos from concept to completion. (Equivalent to ART1838 Elementary Digital Video.)

#### COMM2025

3 Credits

##### Communication Theory

This course provides the beginning communication scholar with a solid grounding in communication theory, providing the basis for further learning and research in the field. The class will explore the evolution of the discipline since its emergence in the 20th century and explore the major theories and approaches to the study of communication in the historical and cultural context in which they emerged and developed. The course will connect theory to practice.

#### COMM2101

3 Credits

##### Professional Communication

Study of and practice in major oral and written communications techniques and modes appropriate to professional communicators and others. Emphasis on group dynamics, collaborative presentations, research, audience analysis, effective writing and speaking styles. Prerequisite: ENWR1002 Composition II: Research and Argument.

#### COMM2102

3 Credits

##### International Communication

This course discusses issues such as images of foreign countries, (mis)understanding of different cultures, the flow of information and cultural invasion/imperialism. By taking this course, students will (1) gain a better understanding of the relationship between international communication and globalization, (2) grasp the role mass media play in global communication and (3) enhance critical awareness of problems mass media pose. Prerequisite: ENWR1002 Composition II: Research and Argument.

#### COMM2103

3 Credits

##### Culture and Communication in Film

The course will discuss domestic and foreign films that analyze (1) the ways that they present similarities and differences between cultures, (2) how different cultures influence people to interact differently in the same/similar situations, (3) how and in what ways filmmakers are constrained by but also display their culture while amusing and persuading audiences and (4) what functions films perform in global communication. Prerequisite: ENWR1002 Composition II: Research and Argument.

#### COMM2104

3 Credits

##### Language, Culture and Communication

Language and its relationship to culture and communication. The nature and function of language at the conceptual, syntactic, semantic and pragmatic levels. How a language shapes the characteristics of a culture and how the culture determines the features of its language. The impact of language on (mis)understanding in intercultural/international interactions. Prerequisite: ENWR1002 Composition II: Research and Argument.

#### COMM2204

3 Credits

##### Understanding Human Communication

An introduction to a wide range of theories and research about effective communication in contexts such as friendship, small groups and organizations. Special emphasis on interpersonal and intercultural communication issues. Prerequisite: ENWR1002 Composition II: Research and Argument.

#### COMM2210

3 Credits

##### Popular Culture and the Media

Investigation of the interrelationships of the mass media and popular culture, analyzing the ways in which mass media mirror and affect popular culture.

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## COMM2211

3 Credits

### **Mental Health Issues and the Media**

This course will identify and evaluate common, media-promoted perceptions of mental health, addressing how images perpetuated by film, print and broadcast media influence families, the health care industry, the political establishment and others responsible for the wellness of individuals with mental illness. The course is suitable for nursing and psychology majors, as well as communication majors and others interested in media or mental-health concerns.

## COMM2215

3 Credits

### **Photoshop® for Advertisement and Illustration**

The use of Photoshop® in the creation and manipulation of digital artwork for editorials and advertising in print media. Student projects are modeled after real-world commercial assignments.

## COMM2272

3 Credits

### **Layout and Typography**

Layout techniques. Principles of typography. Copy-fitting for advertising.

## COMM2321

3 Credits

### **Advertising Principles**

Study of the role of advertising in the marketing mix, concepts and methods used in the setting of advertising goals, budgeting, planning and implementation of a creative strategy, considerations of media and evaluation of campaign plans. Economic, social, legal and ethical issues of advertising are discussed.

## COMM2415

3 Credits

### **Sports and Popular Culture**

The significance of sports' contributions to popular culture during the 20th and 21st centuries. The primary focus will be on the United States, but contemporary globalization will also be considered. The primary mode of inquiry will be through discussions that examine sports in a variety of cultural forms including, but not limited to, literature, film, television, advertising, cartoons, the internet and music. Prerequisites: ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument.

## COMM2443

3 Credits

### **Ethics in Media**

Ethics in the print and broadcast media, using current newspaper articles and news programs as resources. Students participate in the decision-making process of reviewing and selecting information for mass audiences. Emphasis on class discussions.

## COMM2557

3 Credits

### **Radio Broadcast Workshop**

Radio station operations. Selection and editing of news and musical materials, including practical assignments.

## COMM2558

3 Credits

### **Basic Radio Station Engineering**

Practicum in broadcast audio equipment theory, wiring, operation, studio design, construction and maintenance. Emphasis on the current digital revolution in broadcasting with areas of discussion including the digital production studio, editing tools, the on-air studio and HD digital radio transmission (both conventional and satellite).

## COMM2648

3 Credits

### **Basic Video Editing**

Introductory video/audio editing techniques, procedures and theory. A hands-on approach utilizing the AVID nonlinear video-editing equipment to edit video projects. Corequisite: COMM2649 Basic Video Editing Laboratory. (Equivalent to ART2648 Basic Video Editing.)

## COMM2649

0 Credits

### **Basic Video Editing Laboratory**

Video/audio editing with the professional AVID digital nonlinear editing system. These labs will emphasize a hands-on approach in the editing of video projects. Corequisite: COMM2648 Basic Video Editing.

## COMM2659

3 Credits

### **Broadcast News**

Writing and rewriting news for radio and television broadcast. A studio course. Prerequisite: COMM2833 News Reporting.

## COMM2673

3 Credits

### **Basic Video Production**

Classroom and hands-on field production course introducing students to the principles and practices of video/digital production and postproduction. This includes camera shooting and digital video editing (with AVID) of video projects. (Equivalent to ART2673 Basic Video Production.)

*Fee*

## COMM2685

3 Credits

### **Scriptwriting for Television, Film and Audio Visuals**

Preparation of concepts, treatments and scripts suitable for production. Prerequisite: ENWR1002 Composition II: Research and Argument.

## COMM2743

3 Credits

### **History of Film: Special Topics**

Selected topic: intensive study of one particular aspect of film history such as directors, studios or genres. May be repeated, but student may not repeat a topic. Prerequisite: ENWR1002 Composition II: Research and Argument.

*Fee*

## COMM2745

3 Credits

### **Introduction to Film**

The art of the motion picture, using selected films, and including screenwriting, camera, performance, music and sound, editing and the roles of producer and director.

*Fee*

## COMM2833

3 Credits

### **News Reporting**

Evaluation of news and news-gathering methods. Study of various types of stories in the press. Practice in newswriting. Prerequisite: ENWR1002 Composition II: Research and Argument.

## COMM2835

3 Credits

### **Feature Article Writing**

Recognizing, reporting, writing and editing quality feature stories, based on sound journalistic practice and drawing from contemporary and classic examples. Prerequisite: ENWR1002 Composition II: Research and Argument.

*Fee*

## COMM2851

3 Credits

### **Photojournalism: Technique, Theory and History**

Emphasis on weekly student photography assignments in the style of a photojournalist. Students will shoot and modify/print weekly shooting assignments. Professional photojournalistic techniques and procedures will be stressed. Photojournalistic theory and history will complement the hands-on assignments. Note: Students must own or have access to a digital camera with a zoom lens or a 35mm film camera with zoom or set of prime lenses as well as photo-editing software such as Adobe Photoshop/Adobe Photoshop Elements, Adobe Photo-Deluxe or Corel Paint Shop Photo Album 5 Deluxe.

## COMM3101

3 Credits

### **Investigating Communication: Research Methods**

An introduction to the research procedures and techniques used in such fields as advertising and journalism. Emphasis on understanding the rationale for survey, experimental and ethnographic research methods.

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## COMM3102

3 Credits

### Media, History and Society

The relationship of media to history and society: how media shapes culture, leads to social change and affects human history. An interdisciplinary approach that includes philosophy, history, sociology, linguistics, semiotics, art, education, communications and cultural studies.

## COMM3216

3 Credits

### Myth, Symbol and Media

The ways in which words, pictures, symbols and myths affect communication.

## COMM3295

3 Credits

### Theories of the Press

Survey of relationships between the freedom of speech and press, and the right to know (in terms of contemporary theories of the press). Prerequisite: COMM1101 Mass Media: Image, Sound and Text or permission of instructor.

## COMM3324

3 Credits

### Intercultural Communication in the Global Workplace

This course offers students the solid theoretical foundation they need and an engaging writing style peppered with examples culled from the personal experience of living and working abroad. The course zeroes in on the specific needs of a firm — from broad cultural and business values to the influence of culture on negotiations and the structure of the firm. Part of the course focuses on applying cultural concepts to real-life situations. It also emphasizes teamwork in intercultural groups. Legal issues in intercultural business communication are covered extensively. The first part of the course contains detailed discussion of cultural values that influence intercultural business communication.

## COMM3345

3 Credits

### Advertising Copywriting and Layout

Study of the creative functions of advertising in print and broadcast. Students develop advertisements, including all visual and verbal elements, to develop creative ability and critical judgment. Prerequisite: COMM2321 Advertising Principles.

## COMM3346

3 Credits

### Advertising Media Strategies

Evaluation, selection and characteristics of mass media as used in advertising channel strategies. Media comparisons and cost calculations. Matching media audiences with target markets and groups. Prerequisite: COMM2321 Advertising Principles.

## COMM3348

3 Credits

### Broadcast Advertising

A practical and informative course describing the various aspects of the television advertising business (programming, sales, rating, negotiations) with special emphasis on network television. Prerequisite: COMM2321 Advertising Principles or permission of director.

## COMM3360

3 Credits

### Digital Audio Editing

Radio and television station and network operations, with emphasis on business considerations, roles and functions of various positions; practical work in campus radio and television facilities.

## COMM3362

3 Credits

### Advertising Campaigns

Analysis of case-history studies of advertising campaigns. Preparation of an actual campaign. Prerequisite: COMM2321 Advertising Principles.

## COMM3431

3 Credits

### Sports Information Writing

Examination of and practical exercises in sports information writing: gathering news and writing basic sports stories and press releases; designing and writing brochures and other publicity material; interviewing techniques; information sources and outlets; setting up and operating “gameday” activities.

## COMM3432

3 Credits

### Sports Journalism

This course is concerned with the news and feature writing of sports events, including reportorial skills, photography and opinion writing. Attention given also to public relations and promotion of sports and sports events.

## COMM3444

3 Credits

### Public Relations

An introduction to the purposes and practices of public relations and its role in administration and in society. The essentials of different activities in public relations and various media are studied, basic skills are taught and applications are made to case studies.

## COMM3500

3 Credits

### Senior Communication Seminar

The capstone course that brings together the various areas — media theory, advertising, public relations, film, broadcasting and journalism — that make up the field of communication. Required of all communication majors. Prerequisite: upper-division standing (a minimum of 64 credits earned).

## COMM3558

3 Credits

### Advanced Radio Broadcast Workshop

Refinement of on-air performance and procedures, conducted at WFDU (FM). Permission of department required. Prerequisite: COMM2557 Radio Broadcast Workshop.

## COMM3665

3 Credits

### International News: The Views Beyond Our Borders

Analyzing the way news is reported and covered in countries outside the United States and how they shape world news and the image of the United States. Prerequisite: ENWR1002 Composition II: Research and Argument.

## COMM3666

3 Credits

### Television Around the World

Intensive examination of the use of world television to inform, to mold opinion and to affect attitudes toward government and institutions.

## COMM3668

3 Credits

### Television News: The Big Issues

Television's coverage of the major social, economic, political and philosophical issues of our times.

## COMM3675

3 Credits

### Advanced Video Production

The study of video/digital preproduction, production and postproduction with an emphasis on professional techniques, procedures and theory. The course requires students to shoot and edit independent projects. Students are encouraged to produce a portfolio/reel for future professional endeavors. Prerequisite: COMM2673 Basic Video Production. (Equivalent to ART3675 Advanced Video Production.)

*Fee*

## COMM3748

3 Credits

### Video Moviemaking

Basic video moviemaking. Independent student projects emphasizing preproduction (planning), production (camera shooting) and postproduction (nonlinear digital editing with AVID). Prerequisite: COMM2673 Basic Video Production.

*Fee*

## COMM3749

3 Credits

### Advanced Video Editing

A project-orientated, hands-on course that emphasizes enhanced editing techniques, procedures and theory with the AVID digital

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nonlinear editing system. Editing projects are produced by the students through self-produced video camera shoots, graphic media and audio media. Students are encouraged to add these projects to their portfolios/reels. Prerequisite: COMM2648 Basic Video Editing. (Equivalent to ART3749 Advanced Video Editing.)

## COMM3801

3 Credits

### Community, Computers and Cyberspace

Impact of computers and communication technology on individuals, communities and societies.

## COMM3834

3 Credits

### Advanced News Reporting

Additional emphasis given to practical assignments. Prerequisite: COMM2833 News Reporting.

## COMM3835

3 Credits

### Advanced Journalism

News gathering, interviewing, preparation of copy and critical story analysis. Prerequisite: COMM2833 News Reporting.

## COMM3997, COMM3998

1–3 Credits

### Internship in Communication

Consult with department for further information. Prerequisites: upper-division standing and permission of school director. Maximum 6 credits for all internships.

## COMM3999

1–3 Credits

### Internship: Equinox

Practical work on student newspaper or yearbook. Consult the school for further information. Maximum 6 credits for all internships. Prerequisites: upper-division standing, permission of school director and COMM2521 Advertising Principles or COMM2833 News Reporting.

## COMM4468

3 Credits

### Bollywood and Beyond: India in Film

As India responded to major cultural and technological shifts during the 20th century, Bollywood was crucial to the creation and reinforcement of the nation's changing images of itself and its people. This study of Indian film reflects these changes and looks at the ways that cultural identities are shaped with reference to popular art, technology, history and contemporary politics. (Equivalent to HUMN4468 Bollywood and Beyond: India in Film.)

## COMM4470

3 Credits

### The Television Newsroom

The inner workings of the television newsroom: operations, structure, personnel and crew. This approach is used in conjunction with an in-depth study of TV news field reporting. Students will produce, shoot and edit on-the-scene news stories using professional broadcast techniques and procedures.

## COMM4800

1–3 Credits

### Independent Study in Communication

Independent study under the direction of a specific faculty member. Prerequisites: upper-division standing and approval of school director.

## COMM4930, COMM4932–COMM4970

1–3 Credits

### Selected Studies in Communications (Sports Ethics and Leadership, Communication and Sport)

Studies in an area of communications.

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School of Computer Sciences and  
Engineering*

## CSCI1105

3 Credits

### Survey of Computers and Computer Software

History of computers, hardware and software systems, files and databases, algorithms, personal computers, computer communications and networking, computers and society: applications, issues and responsibilities. (No credit for computer science majors.)

## CSCI1110

3 Credits

### Visual Basic

The visual basic (VB) programming environment, projects, forms, VBX controls, modules and DLLs. Language Building Blocks, Setting properties, using methods and programming events. Writing code for subroutines and functions. Working object variables. MDIs child forms. Controlling the Windows environment through the API. Accessing and reporting on databases with the data control. Prerequisite: working knowledge of Windows.

## CSCI1201

3 Credits

5 Contact Hours

### Computer Programming I

Elements of algorithm design and problem solving. Elementary data types and arrays. Basic

control structures: sequential, conditional, iterative. Assignment statements. Basic input/output. Elements of methods. Design, coding and implementation of programs in various areas using a language such as Java. (Equivalent to INFO2101 Computer Programming for Information Technologists I.)

*Fall, Spring*

## CSCI1202

3 Credits

5 Contact Hours

### Computer Programming II

Stepwise refinement as a programming tool. Objects and classes. Inheritance and polymorphism. Character string manipulation. Advanced input/output. Elements of debugging and testing. Design, coding and implementation of programs in various areas using a language such as Java. Prerequisite: grade of C or better in either CSCI1201 Computer Programming I or INFO2101 Computer Programming for Information Technologists I. (Equivalent to INFO2102 Computer Programming for Information Technologists II.)

*Fall, Spring*

## CSCI2215

3 Credits

### Introduction to Computer Science

Introduction to computer hardware and software, their interaction and trade-offs. Essentials of computer organization and arithmetic, assemblers, I/O devices, operating systems, databases and files. Basic ideas in the areas of computer networks, system organization and computer theory. Foundation for more advanced courses. Prerequisite: elementary knowledge of a programming language.

*Fall, Spring*

## CSCI2232

3 Credits

### Data Structures

Implementation of abstract data types used in computer science. Arrays, character strings, stacks, queues, one-way and two-way linked lists, trees, graphs and file structures. Searching, sorting, storage management, structure and selection. Prerequisite: a grade of C or better in CSCI1202 Computer Programming II or INFO2102 Computer Programming for Information Technologists II.

*Fall, Spring*

## CSCI2235

3 Credits

### Survey of Computing Security

This course surveys various topics in the emerging field of computing and information security. The field is ever changing and is of national importance. Topics include first principles of security, access control, security policies, file permissions and security, system monitoring, authentication methods, encryption techniques,



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networking, gateways and firewalls and security management. Students will be able to identify different methods and tools appropriate for cyber defense. Prerequisite: CSCI1201 Computer Programming I.

## CSCI2243

3 Credits

### Statistical Programming

This is an in-lab SAS programming course, including importing and exporting files, predictive-data modeling and exploration (mixed-models analyses, multivariate statistical analysis, longitudinal analysis and survival analysis) and a programming approach to report writing. Prerequisites: MATH1105 College Algebra and elementary knowledge of a programming language.

## CSCI2247

3 Credits

### Assembly Language Programming

Assembly language in relation to computer architecture. Programming in assembly language of a particular computer. Numerical and symbolic applications. Input/output programming. Assembly systems: assemblers, loaders and linkers. Macros. Prerequisites: CSCI1202 Computer Programming II and CSCI2215 Introduction to Computer Science.

*Fall, Spring*

## CSCI3240

3 Credits

### Computer Networks

Introduction to the theory and practice of computer networking. Protocol design and analysis. Topics include layered protocol architectures, packet and circuit switching, multiplexing, routing, congestion and flow control, error control, sequencing, addressing and performance analysis. Examples from current data networks. Prerequisite: CSCI2215 Introduction to Computer Science. Corequisite: MATH2255 Discrete Structures or permission of instructor.

## CSCI3246

3 Credits

### Wireless LANS

Introduction to wireless LANS and their technology and use. Topics include design, installation, troubleshooting, security and 802.11 frames. Prerequisite or corequisite: CSCI3240 Computer Networks.

## CSCI3249

3 Credits

### Computer Organization

Introduction to computer architecture: instruction sets, data types and addressing modes. Design of control unit of CPU; microprogramming; memory hierarchies; registers, caches, main, secondary and archival memories. Input/output functions and control. Introduction to arithmetic-logic unit. Prerequisite: CSCI2247 Assembly Language Programming.

## CSCI3251

3 Credits

### Design of Software Systems

Systems-development life cycle: requirements analysis, system design, system implementation, software testing and maintenance. Program documentation. Team projects. Prerequisite: CSCI2232 Data Structures.

*Spring*

## CSCI3255

3 Credits

### Mathematical Foundations of Computer Science

Discrete mathematics: sets, relations, algebras, graph theory, Boolean algebra, mathematical induction. Grammars and languages. Automata theory: finite and pushdown automata. Turing machines. Computability and the halting problem. Decidability. Prerequisite: MATH2255 Discrete Structures.

## CSCI3268

3 Credits

### Database Systems

Overview of the function and architecture of database systems. Study of storage structures and their implementation. Survey of the current types of data models with emphasis on relational databases. Examples of data definition and data manipulation languages. Specific database management systems will be studied to support the database concepts. Prerequisites: CSCI1201 Computer Programming I and CSCI2215 Introduction to Computer Science or permission of instructor.

## CSCI3274

3 Credits

### Linux System Administration

The course introduces the concepts of system administration as they apply to the Linux operating system. Topics include operating-system concepts; directories and file systems; users, groups and permissions; Linux and Windows; bash shell and editing; regular expressions and scripting processes and services; network, network software and the internet; and database security and installation. Students will be able to install and maintain Linux-based computing systems in the lab. Integrated laboratory experience. Corequisite: CSCI3268 Database Systems.

## CSCI3278

3 Credits

### Operating Systems

Operating system as machine virtualizer and resource manager. Management of parallel processes. Main memory management; virtual memory. Process management. Secondary storage management. Performance measurement. System security. Prerequisite: CSCI2247 Assembly Language Programming. (Equivalent to INFO4278 Operating Systems.)

## CSCI3314

3 Credits

### Mobile Application Development

Introduction to application development for mobile platforms using Android. Topics include graphic user interface design with Android Development Tools; Android's API for video, audio, graphic and animation; touch-screen handling; and fundamentals of game development. Prerequisite: CSCI1202 Computer Programming II.

## CSCI3317

3 Credits

### Computer Game Programming

Introduction to computer game development. Topics include fundamentals of Microsoft DirectX® game and graphics libraries, 2D graphics and animation, audio output, keyboard/mouse handling and fundamentals of 3D modeling and programming. Prerequisite: CSCI1202 Computer Programming II.

## CSCI3318

3 Credits

### Cloud Computing

This course provides a comprehensive introduction to cloud computing. Topics include cloud-computing models and technologies, IaaS, PaaS, SaaS, security and privacy issue. Hands-on projects include the use of cloud services, such as Amazon Web services and Google APP Engine.

## CSCI3320

3 Credits

### Introduction to Computer Simulation

Systems and models; classifications of simulation types. An introduction to continuous simulation, discrete simulation, simulation languages and games. Prerequisites: proficiency in a programming language and MATH2202 Calculus II.

## CSCI3331

3 Credits

### Advanced Database

Study of database recovery, reorganization, performance and space management. Issues of integrity, transaction processing, concurrency and logical and physical database design. Prerequisite: CSCI3268 Database Systems.

## CSCI3338

3 Credits

### Advanced Oracle SQL Performance and Tuning

Performance measurement and tuning of Oracle SQL applications. Analysis of Oracle database architecture with regard to optimizer modes. Interaction of SQL language and database engine. Prerequisite: CSCI3268 Database Systems.

## CSCI3339

3 Credits

### Voice-over IP Technologies

This course gives an introduction of voice-over IP technologies. Topics include the Public

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Switched Telephone Network (PSTN), signalling specifications, modulation and compression of voice, Quality of Service (QoS), H.323 architecture and protocol suite, Session Initiation Protocol (SIP), gateway protocols and voice and data network convergence. Prerequisite: CSCI3240 Computer Networks.

## CSCI3540

3 Credits

### Advanced Switching and Internet Routing

This course focuses on advanced switching and internet routing protocols. Topics include switch design and operation, VLANs, port security 802.1x, trunking, port aggregation, high availability and redundant switched network design, advanced IP addressing architectures, routing algorithm concepts and routing protocols: RIP, OSPF, BGP, multicasting, protocol tunneling and routing security. Prerequisite: CSCI3240 Computer Networks. *FDU NetID (formerly Webmail) account required.*

## CSCI3542

3 Credits

### Client-server Computing

An introduction to the theory and technology of client-server computing. General software architecture and component-based software system development, n-tier architecture, sockets, Remote Procedure Call (RPC), JAVA Remote Method Invocation (RMI), Common Object Request Broker Architecture (CORBA), Component Object Model (COM)/Distributed COM (DCOM) and their applications. Prerequisite: CSCI2252 Data Structures.

## CSCI3545

3 Credits

### Firewalls and Intrusion Detection Systems

This course covers the theoretical and practical aspects of firewalls and intrusion detection systems. Some aspects of VPNs and routers also will be covered. Prerequisites: CSCI3240 Computer Networks, CSCI3278 Operating Systems or permission of instructor.

## CSCI3550

3 Credits

### SAS-I

Based on commercial software SAS, this course is a foundation for writing SAS programs to accomplish data processing and statistical analysis. Topics include reading raw data files, SAS data sets, subsetting data; combining multiple SAS files; creating SAS variables and recoding data values; and creating and linking HTML and summary reports. Prerequisites: knowledge of a high-level programming language and basic knowledge of statistics.

## CSCI3560

3 Credits

### Software Reuse

Retrieving and integrating library units (code, documentation, etc.) into the design of reusable software systems. Creating reusable assets for incorporation into a software library. Programming in Ada 9x or another object-oriented language. Programming projects are assigned. Prerequisite: CSCI2252 Data Structures.

## CSCI3575

3 Credits

### Concepts of Programming Languages

Fundamental concepts underlying different paradigms of programming languages. Syntactic and semantic aspects, including attribute binding, storage management, control and data abstraction. Programming in various languages. Prerequisite: CSCI2252 Data Structures.

## CSCI3580

3 Credits

### UNIX Shell Programming

To enable students to derive maximum benefits from using shells. The course will cover shells for the novice, shells programming for results and shells programming for mastery. The skills to create whole applications together with the steps into the world of software developers and systems administrators. Prerequisite: CSCI2215 Introduction to Computer Science.

## CSCI3581

3 Credits

### Compiler Theory

Formal languages, grammar, Backus-Naur Form. Scanners. Top-down and bottom-up parsers. Storage organization. Polish notation. Code generation and optimization. Prerequisite: CSCI3251 Design of Software Systems.

## CSCI3585

3 Credits

### Artificial Intelligence

A general introduction to the ideas and methods that enable computers to be intelligent. Topics include search algorithms, expert systems, natural language processing, methods of knowledge representation and machine learning. Programming projects. Prerequisite: CSCI2252 Data Structures.

## CSCI3591

3 Credits

### Network and Information Security

Coverage of potential threats to a stand-alone or networked computer. The course includes strategies to harden the system against these threats and discusses the liability of the network administrator for crimes committed via the network. Business issues considered include social engineering, continuity, data backup and recovery and risk analysis. Prerequisite: CSCI3240 Computer Networks or EENG4542 Data Communications and Computer Networks or

INFO4101 Data Communications and Computer Networks I. (Equivalent to INFO4891 Network and Information Security.)

## CSCI3410

3 Credits

### Foundations of Cybersecurity

The topic of Information Assurance and Security (IAS) has become of increasing importance as computer systems are being subjected to continuous and more sophisticated attacks. This course presents an introduction to the application and management of mechanisms for cybersecurity and information assurance in computing, communication and organizational systems. Topics covered include malware and social engineering, vulnerability assessments, network security, authentication, basic cryptography and risk analysis. Prerequisite: CSCI3240 Computer Networks or EENG4542 Data Communication and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to INFO4410 Foundations of Cybersecurity.)

## CSCI3420

3 Credits

### Cryptography

Cryptographic techniques are chief mechanisms for protecting the security services of confidentiality and integrity. This course covers cryptographic primitives, including secret and public key encryption, cryptographic hash functions, digital envelopes and the key distribution problem. Prerequisite: CSCI3410 Foundations of Cybersecurity or INFO4410 Foundations of Cybersecurity.

## CSCI3444

3 Credits

### Programming for the Internet

This course introduces students to the fundamentals of Microsoft.NET framework, the ASP.NET development environment and C# programming. It also covers XML web services, SQL Server database and Microsoft web server IIS (Internet Information Services). Students study how to develop powerful websites and web applications that access databases using dynamic, server-side programming in C#. They also learn how to deploy such applications over various servers. Prerequisite: CSCI3268 Database Systems. (Equivalent to INFO4844 Programming for the Internet.)

## CSCI3460

3 Credits

### Data Warehouse and Data Mining

Students will study the fundamentals of the data warehouse, including architecture and decision making. Techniques like online analytical processes and data mining will also be studied. Tools and techniques to help make business decisions will also be covered. Prerequisite: CSCI3268 Database Systems.

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## CSCI3470

3 Credits

### Enterprise Computing for the IBM zSeries

Students will study the software, architecture, security, network capabilities and data management of the IBM zSeries computers. There will also be a fundamental study of DB2 and the zSeries control language. Prerequisites: CSCI1202 Computer Programming II and CSCI2215 Introduction to Computer Science.

## CSCI3783

3 Credits

### Information Security

This course will study the important area of information security. It will cover both security management and the technical components of security. Topics will include many of these areas: security analysis, logical security design, physical security design, implementation of security systems and security maintenance. Prerequisite: CSCI3268 Database Systems.

## CSCI4050

3 Credits Each Semester

### Current Topics in Computer Science

Topics selected from recent advances in computer science. Content to vary from year to year. Prerequisite: permission of the instructor.

## CSCI4373

3 Credits

### Distributed Database Systems

Theory of distributed databases and comparison to centralized databases. Methodologies to provide transparent access to and updating of local databases. Study of global locking and deadlocking strategies. Prerequisite: CSCI3268 Database Systems.

## CSCI4380

3 Credits

### Systems Development with Java

This course introduces students to advanced Java programming and how object-oriented systems development is realized in Java language. The topics covered include graphical user interface (GUI) design and programming, Java Swing Components, graphics, exception handling, multithreading, Java database connectivity (JDBC), Java networking programming, remote method invocation (RMI), Java Servlets and Java Server Pages (JSP). It also exposes students to the applications of entity objects, boundary objects and control objects in programming. It enables students to do programming in database, networking, windows, multithreading and the web development using Java. Prerequisites: CSCI3251 Design of Software Systems and CSCI3268 Database Systems.

## CSCI4475, CSCI4476

Variable Credits

### Honors Computer Science

Independent study in computer science for students in the University Honors Program under

the direction of a faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

## CSCI4498, CSCI4499

3 Credits Each Semester

### Co-op in Computer Science

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

## CSCI4800

1–6 Credits Each Semester

### Independent Study in Computer Science

Independent study under the direction of a faculty member after consultation with the school director.

### Graduate Courses

Students may take selected graduate courses in computer science with the permission of the instructor and the school director.

# Criminal Justice and Legal Studies

## School of Criminal Justice, Political Science and International Studies

## CRIM1101

3 Credits

### Introduction to Criminal Justice

This course provides a comprehensive overview of the United States criminal justice system. In context to the philosophical underpinnings of the U.S. Constitution and the historical, social and political development of the United States, this course will examine the three major components of the criminal justice system: (1) police and law enforcement, (2) the court and adjudications and (3) corrections. The framework of the course revolves around the concepts of social order and control; theories of criminality; the legislation, enforcement and adjudication of criminal laws; the remediation of criminal behavior; and the influence of public policy in the administration of justice.

## CRIM1102

3 Credits

### Criminology and Social Theory

This course examines the theoretical perspectives on the nature and causes of crime, criminal behavior and criminality. Topics include the nature of law, types of crimes, deviancy, crime statistics, crime-prevention strategies and issues

in the administration of justice. It will examine the biological, psychological and sociological theories of crime causation.

## CRIM1103

3 Credits

### Criminal Law

The objective of this course is to provide the student with the general principles of criminal law as a whole, in contrast to the specific definition of crimes (which vary from jurisdiction to jurisdiction). These general principles will be applied to: 1) classify and understand the varied elements of specific crimes; 2) formulate the bases for specific crimes that prosecutors must prove; 3) touch upon constitutional requirements; and 4) understand the recognized defenses to justify or explain alleged criminal conduct.

## CRIM1112

3 Credits

### Minorities, Women and the Criminal Justice System

This course examines the history and experiences of minorities within the criminal justice system. An examination of how each component of the criminal justice system relates and responds to minorities and women in the capacity of defendants, victims, citizens and public employees. Specific attention will be directed to constitutional protections and matters of discrimination, differential treatment, recent court decisions and the future of women and minorities in the criminal justice system.

## CRIM1120

3 Credits

### Introduction to Jurisprudence

Jurisprudence is the study of legal theory and the practical application of the law. The approach to this class is twofold: (1) to make the student aware of the history and nature of the law and the major philosophical approaches to the study and practice of law (a "classic" intellectual examination of jurisprudence); and (2) to critically apply those philosophies to the practice of law. The class will examine the tenets of criminal law, contract law, civil and criminal procedure, torts, property law and family law. Those principles will be practically applied by the student in order to gain insight into the function of the law as practiced in courts today.

## CRIM1125

3 Credits

### Introduction to Social Service Advocacy

This course introduces students to the fundamental concepts and theories of social service advocacy and social work and explores the practical implication of these on organizations, communities, groups, families and individuals (the client). The course is centered on three major components of social-work practice: 1) inequality and social justice, 2) social welfare policy and 3) social practice methods. The course will also

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explore human behavior and development as well as needs and services within the legal and organizational context of the discipline.  
(Equivalent to PSYC1125 Introduction to Social Service Advocacy.)

## **CRIM1130** **3 Credits**

### **Working with Children and Families**

This course is designed to prepare students with the knowledge, skills and ethics for effective practice in the field of child and family welfare. The course will explore the history, evolution and current status of child-welfare policies, the service continuum provided to families and children and the sociocultural context of child-welfare practice. Empowerment and strengths-based perspectives will form the theoretical framework for practice skills. An emphasis will be placed on understanding public policies that support the basic needs of families as well as policies governing the child-welfare system and selected policies governing juvenile justice, adult criminal justice, mental health and educational systems.

## **CRIM1135** **3 Credits**

### **Social Justice and Structural Inequality**

This course will examine the intersections of inequality as it relates to race, class, sexuality and gender and how they intersect with social justice advocacy and social institutions. Students will be introduced to specific problems and their connection to broader theoretical and policy implications.

## **CRIM1700** **3 Credits**

### **Introduction to Security Operations**

Beginning with the historical development of private security, this course provides a conceptual overview of the security industry to include crime control, loss-and-risk prevention, asset protection, physical and electronic security and the use of integrated technologies. Specifics include personnel and physical security, barriers, protective lighting, locking mechanisms, Intrusion Detection Systems (IDS), access/entry control, Closed Circuit Television Systems (CCTV) and Crime Prevention through Environmental Design (CPEd).

## **CRIM2100** **3 Credits**

### **Professional and Legal Writing**

This course is designed to prepare students for the characteristic style and format of writing letters and reports within the various professions of the criminal justice system. Emphasis will be on developing cogent, analytical and legally sustainable documents with particular attention to format, structure, grammar and literary style. This course meets the requirements of the law-school preparation curriculum. Prerequisite:

ENWR1002 Composition II: Research and Argument.

## **CRIM2201** **3 Credits**

### **Police and Society**

The objective of this course is to provide the student with a comprehensive understanding of the role, responsibility and interdependent relationship of the police and law enforcement within American society. Inherent to the responsibility for maintaining order and public safety, enforcing society's laws, preventing crime and providing social-related services, there exists dichotomy, controversy and challenges. Beginning with a historical perspective, contemporary policing will be examined from a variety of operational, managerial and administrative perspectives taking into consideration the many social, cultural, legal, political, economic and technological changes that influence a free, democratic and capitalistic society.

## **CRIM2202** **3 Credits**

### **Corrections, Parole and Probation**

This course encompasses an analysis of formal institutions involved in the correction, punishment and rehabilitation of criminal offenders. Topics include the prison as a sociocultural system, the efficacy of penal institutions and the emergence of alternative systems of punishment and control. In addition, the course will examine the functions of probation, parole and community corrections within the context of the rehabilitative, crime prevention and reintegration models.

## **CRIM2204** **3 Credits**

### **Juvenile Justice and Delinquency**

The objective of this course is to offer the student a comprehensive overview of juvenile delinquency and its impact on society. It will examine the demands that delinquency places on schools, police, the courts, corrections and the community. Attention will focus on the history, trends, patterns and extent of delinquency, along with the role gangs, family, peers, gender and schools play in its development. The impact of the police, the courts and juvenile corrections on reducing juvenile delinquency will also be examined.

## **CRIM2205** **3 Credits**

### **Criminal Justice Research Methods**

An introduction to research design and methodology within the frame of criminal justice studies. Hypothesis development, experimental design, surveys, testing and the gathering and presentation of information are covered. Participants will develop facility in using the library's online database. Students will critically analyze theoretical materials and review bibliographic information. Using written assignments, partici-

pants will be expected to hone their logical, analytical and grammatical skills.

## **CRIM2206** **3 Credits**

### **Criminal Investigation**

An examination of the legal and procedural aspects of conducting a criminal investigation as part of the process of determining the facts of a crime and the identification of the victims, witnesses and perpetrators. Crime-scene sketching; photography; video; fingerprinting; evidence collection; interviewing and interrogation; ballistics; forensic examination; voice, retina and DNA analysis; and other contemporary technologies and applications will be explored.

## **CRIM2207** **3 Credits**

### **Community Policing**

A general examination of the evolution of policing, public and community relations, including the role of police in their interactions with offenders and victims, community-police projects and programs and community-crime prevention. Specific attention will be directed to the importance of problem solving, developing comprehensive community partnerships and facilitating organizational changes within police agencies.

## **CRIM2208** **3 Credits**

### **Victimology**

This course will focus on the criminal event from both the perspective of the victim and the motive of the offender. It will examine victimization patterns, typologies, lifestyles, causal factors, consequences and analyze the criminal justice system's procedures, treatment and resources for crime victims. It also will utilize numerous case scenarios and analyze the dynamics of various violent crimes for warning signs, criminal purpose/selection and strategies for individuals to reduce their risk of becoming crime victims.

## **CRIM2211** **3 Credits**

### **School and Workplace Violence**

This course will examine the nature, types, extent and causes of and responses to school and workplace violence. It will consider related issues such as the origins of anger, the work/school climate, victim culpability and offender risk factors. Strategies to prevent and de-escalate violence and manage conflict will also be examined.

## **CRIM2212** **3 Credits**

### **Terrorism, Intelligence and Justice**

This course aims to offer the student a comprehensive overview of terrorism and its impact on humanity. It will also examine the demand that terrorism places on governments, particularly

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the military and law enforcement. Particular attention will be focused on the history of terrorism and its impact on modern-day society both in the United States and abroad. Students will also examine the ever-changing training and preparedness that the criminal justice system must continually engage in. The class will study and discuss other issues that governments must address in their efforts to remain prepared to respond to the horrific devastation that potentially may occur as a result of terrorist actions.

## CRIM2214 3 Credits

### **Criminal Procedure Law**

The objective of this course is to provide the students with the general principles of criminal procedure law as a whole, and how the United States Constitution's guarantees of the rights of individuals to life, liberty, privacy and property are balanced against the government's power to enforce criminal law. The course will critically examine the application of these principles to real problems, specifically: 1) an individual's right to due process of the law; 2) the balancing of the end result versus the process by which that end is achieved; 3) the requirements which must be met before there is a lawful invasion of privacy by the government; and 4) remedies for constitutional violations.

## CRIM2215 3 Credits

### **Crime and Forensics**

This course examines the philosophical considerations of the integration of forensic science disciplines with criminal investigation. It will encompass an overview of crime scenes, physical evidence and the examination of the major forensic subdisciplines of pathology, toxicology, odontology, anthropology, art, firearms, tool marks, criminalistics, serology, DNA and questioned documents.

## CRIM2216 3 Credits

### **Sex, Deviance and the Law**

This course will examine the causes and treatments of sexual offenders, beginning with an exploration of the historical perspectives of sexual behaviors, the etiology of sexual deviant behavior, the cycle of offending, types and typologies of sexual offenses, juvenile offenders and victims. The course will also examine policy implications of research outcomes, responses to assessment and treatment of sexual offenders, the management of sexual offenders in the community and the future direction of research of sexual offenders.

## CRIM2218 3 Credits

### **Computer Technologies and Cyber Crime**

This course introduces students to the use and application of computer, digital and information

technologies within the fields of criminal justice and security. Topics will examine the use of computer and related technologies in committing crimes and conducting criminal investigations, including intelligence gathering, crime-mapping and analysis, predictions, biometric and biological (DNA) identification and personnel management and administration. It will also examine the motives of the cyber offender, the forensic analysis of a computer to assist in the development of a suspect's psychological profile, the role of computer forensics in investigations and the protection and processing of digital data and computer crime scenes.

## CRIM2250 3 Credits

### **The Death Penalty**

This course will examine the historical basis of capital punishment, leading up to its practical application today in the United States and in selected countries throughout the world. Students will be exposed to arguments for and against the death penalty and will be encouraged to critically assess their own feelings toward the ultimate sanction.

## CRIM2251 3 Credits

### **The Art and Science of Homicide Investigation**

Following along a literary theme of a Sir Arthur Conan Doyle "Sherlock Holmes" novel, this Wroxton-based course will examine the art and science of homicide investigation from a legal, criminological, forensic and operational perspective. The course will be facilitated in collaboration with British police officials. It will feature field visits to a post-crime scene, a criminal investigative center, the London Metropolitan Police and Scotland Yard. A combination of academic, cultural and social experiences will provide for a holistic educational experience.

## CRIM2255 3 Credits

### **Cyber Crime**

This course examines technology's role in the commission of financial crimes, identity theft, computer hacking, terrorism, sexual exploitation of children and traditional offenses such as murder, arson and drug trafficking. It will explore contemporary trends in computer crime, the means in which technology is exploited for criminal endeavors, the motives of the cyber offender, the forensic analysis of a computer to assist in the development of a suspect's psychological profile, the role of computer forensics in investigations and the protection and processing of an electronic crime scene.

## CRIM2240 3 Credits

### **Criminal Profiling**

This course will examine crime and the criminal from the perspective of psychological profiles,

different levels of motivation and different prognoses of criminal behavior. Criminal behavior will be presented as complex behavior with different phenomenology, psychopathology and dynamics. In addition to the study of topologies, theories and research, a major focus will be on criminal profiling through presentation of case material and case findings to further an understanding of criminal behavior.

## CRIM2250

3 Credits

### **Emerging Issues in Crime and Justice**

This course provides a rigorous examination of emerging issues and controversies related to crime and public policy, the criminal justice system and the administration of justice. Topics such as the U.S. Patriot Act, capital punishment, drug policies and their enforcement, police ethics and discretion, the use of force, recidivism and discrimination will be addressed.

## CRIM2700

3 Credits

### **Security Investigations and Case Management**

The objective of this course is to provide the student/practitioner with a comprehensive overview and understanding of how to conduct and effectively report background, incident and administrative investigations in a corporate environment. It will cover the use of appropriate investigative techniques as authorized by law. Students will be provided with a working knowledge of emergency planning and "risk analysis" as the means to provide for continued operations. This course also will provide the knowledge to appreciate the motivation and methodology of foreign and domestic terrorist groups as well as the means to protect personnel and corporate personnel assets against terrorist attack.

## CRIM3301

3 Credits

### **Computer Technology in the Criminal Justice System**

A comprehensive review of the use and applications of computer and information technologies within the criminal justice and private security fields. Topics will include the use of the computer and related technologies for criminal investigations, intelligence gathering, crime-mapping and analysis, predictions, biological (DNA) identification, personnel management and administration and other areas germane to the criminal justice and security fields.

## CRIM3302

3 Credits

### **Criminal Justice Management and Administration**

A comprehensive overview of the dynamics of effective supervision, management, administration and general human resource management

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within various settings of the criminal justice system. This course will examine the major principles, practices and theories associated with personnel performance, assessment, productivity, motivation and leadership.

## **CRIM3503**

**3 Credits**

### **Criminal Justice Internship**

Individually designed internships within federal, state and local police/law enforcement agencies, courts and adjudication and correctional agencies, including probation, parole and private security. Students develop hands-on experience in all facets of the respective agency that they select. The internship provides the students with insight, experience and an available network of professional colleagues. Prerequisites: CRIM1101 Introduction to Criminal Justice and CRIM1102 Criminology and Social Theory.

## **CRIM3504**

**3 Credits**

### **Criminal Justice Ethics**

An examination of the moral issues and dilemmas facing criminal-justice practitioners. An understanding and appreciation of the principles of justice will serve as a foundation for considering case studies involving ethical decision-making in various criminal justice agencies. Issues considered are discretionary decision-making, corruption, use of force, race and gender discrimination and capital punishment.

## **CRIM3505**

**3 Credits**

### **Interviewing and Interrogation**

This course examines strategies utilized in the process of interviewing and interrogation. There is an emphasis on communication theory and psychological issues. The differences between interviewing and interrogation will be analyzed, and the general issues regarding eyewitness evidence will be examined.

## **CRIM3506**

**3 Credits**

### **White-collar Crime**

This course will examine crimes committed by governments, corporations and individuals. Specific topics include embezzlement, fraud, extortion, forgery, conspiracy, bribery, perjury, obstruction of justice, official misconduct, unfair trade practices and environmental/manufacturing/labor/administrative violations. Issues relating to the investigation, enforcement and prosecution will be discussed.

## **CRIM3507**

**3 Credits**

### **Domestic Violence**

This course will take an interdisciplinary approach to examining domestic violence. The cycle of violence, dominance and control among adults and intimate partners will be explored from a sociological, criminological and psycho-

logical perspective. The course will examine the criminal justice system's response to the role of the police and proactive arrest policies, aggressive case prosecution, court-issued restraining orders and anti-stalking legislation.

## **CRIM3508**

**3 Credits**

### **The Politics of Crime**

This course will examine the political influences that directly and indirectly affect legislation, enforcement and remediation of crime within American society. Topics will include victim rights, the politician's influence on allegations of police brutality, sentencing, prison reform and other crime and policy issues.

## **CRIM3509**

**3 Credits**

### **Introduction to Homeland Security**

The objective of this course is to provide the students with a comprehensive overview and understanding of homeland security (HLS), the Department of Homeland Security (DHS) and its relevance to international and domestic law enforcement. Several acts of domestic and international terrorism will be analyzed and discussed. Issues such as target hardening and preparedness will be studied. This course will review case studies of past domestic and international terrorism attacks. In addition, this course will conduct an in-depth analysis of past and current HLS and relevant policing models, practices, policies and programs as well as examine the overall restructuring of the federal government agencies that now make up the DHS.

## **CRIM3510**

**3 Credits**

### **Criminal Justice Professional Lecture Series**

In an effort to expose students to the practical side of criminal justice, this course utilizes criminal justice professionals and other service providers as weekly guest lecturers. Speakers are selected from a variety of criminal justice fields including policing; the courts (judges, prosecution and defense); institutional corrections; probation; parole; and victim services. In addition to providing students with a better understanding of the workings of the system, the course also provides students with further insight into the various criminal justice disciplines with a view toward future career choices.

## **CRIM3511**

**3 Credits**

### **Organized Crime**

This course is designed to expose students to the history and impact of organized crime in its various guises. It briefly examines the economic and social conditions, which foster the initiation and growth of criminal enterprises within diverse societies, the current status of traditional and nontraditional gangs and the means through

which those organizations control illegal activities by using violence, bribery and corruption to overcome social control.

## **CRIM3512**

**3 Credits**

### **Comparative Criminal Justice Systems: United States and Great Britain**

This course, held at FDU's Wroxton College in England, will conduct a comparative analysis of the criminal justice systems of the United States and Great Britain. Taught in collaboration with British criminal justice professionals and the faculty of Wroxton College, the course will examine the respective social, cultural, historical, political, economic, geographical, operational and administrative components of both systems. The course will feature field visits to local police constabularies, the London Metropolitan Police (Scotland Yard), British courts and British prisons.

## **CRIM3513**

**3 Credits**

### **Analysis of Serial Killers**

The topic of serial murder occupies a unique niche within the criminal justice community. In addition to the significant investigative challenges they bring to law enforcement, serial murder cases attract an overabundance of attention from the media, mental health experts, academia and the general public. While there has been significant, independent work conducted by a variety of experts to identify and analyze the many issues related to serial murder, these investigations prove to be a challenge for law enforcement. Serial murder is neither a new phenomenon nor is it uniquely American. Dating back to ancient times, serial murderers have been chronicled around the world. The issues relating to serial killers shall be studied from a multidisciplinary perspective.

## **CRIM3514**

**3 Credits**

### **Comparative International Criminal Justice Systems**

This course will conduct a comparative analysis between the United States criminal justice system and those of other major countries throughout the world. The course will examine contrasting social, cultural, religious, political, economic, geographic, operational and administrative components that influence the maintenance of social control and compliance with civil and criminal laws.

## **CRIM3515**

**3 Credits**

### **Advanced Internship**

Students successfully completing CRIM3503 Criminal Justice Internship may choose to continue to develop hands-on experience in the criminal justice field. They may elect to accept more challenging responsibilities at their initial

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internship site or progress to another internship experience. Prerequisites: CRIM1101 Introduction to Criminal Justice and CRIM3303 Criminal Justice Internship.

## CRIM3316

3 Credits

### Global Terrorism

This course examines the causes, motives and effects of global terrorism from an international perspective. It explores strategies and countermeasures employed by government and private sectors that aim to prevent and mitigate terrorism, including the role and responsibility of the media and the criminal justice system. This course, conducted at FDU's Wroton College (United Kingdom), features field visits and guest lecturers with experience and expertise in the field of terrorism.

## CRIM3317

3 Credits

### Fraud Investigation

This course offers students a comprehensive overview of fraud prevention and detection. Learners will gain insight into the implementation of effective fraud-investigation techniques while examining real-life fraud schemes used by employees, owners, managers and executives to defraud their customers. As a result, students will be able to identify and quantify the vulnerabilities that permit frauds to succeed, and they will appreciate the application or implementation of deterrents, which may be mandated by corporate policy and/or legislative guidelines.

## CRIM3319

3 Credits

### Courts and Judicial Process

This course will provide students with an understanding of the process, organization and operation of the judicial branch of government. The judiciary is more than courtrooms, judges, lawyers and trials. There is a vast behind-the-scenes structure composed of other numerous employees and programs which are not fully understood by the public, police, attorneys or other users of the court system. The divisions of court and these programs will be examined in detail as well as the corresponding job opportunities they provide to criminal justice majors.

## CRIM3320

3 Credits

### Interviewing and Counseling Strategies

Effective communication lies at the heart of the criminal justice enterprise. Every profession that is linked to the system has a requirement for skill in communication and the maintenance of resourceful states. Students will be expected to learn the strategies of successful communication and change in an open model that will serve them through their undergraduate and professional careers. This course focuses specifically on the development of oral communication

skills and the development of sensory acuity in communication.

## CRIM3321

3 Credits

### Drugs, Addictions and the Law

Students will explore the nature of addictions and substance abuse in terms of human neurophysiology, drug properties and psychosocial variables. An overview of treatment modalities will be presented. Students will also focus on law-enforcement issues including drug identification, detection and testing.

## CRIM3322

3 Credits

### Negotiation and Conflict Management

Criminal justice professionals are regularly placed in positions where they must diffuse threats, negotiate between parties and bring calm to potentially explosive situations. This course will examine the theoretical basis for and practice the skills and techniques for diffusing threats, bringing calm, finding common ground and creating the basis for agreement and cooperation in interpersonal, intergroup and other problem contexts.

## CRIM3324

3 Credits

### Community Resource Management

Criminal justice professionals regularly encounter people who are in need of a host of services including crisis management, legal and financial assistance, food, emergency housing or protective shelter, health care, mental health care and substance-abuse treatment. This course will examine the kinds of problems typically encountered, the agencies that can supply these needs, levels of service, eligibility criteria and how to navigate the various systems.

## CRIM3325

3 Credits

### Traumatic Injuries and Death Investigation

This course will focus on the forensic components associated with traumatic injuries and sudden deaths, whether sustained by accident, self-inflicted or by consequence of others. Forensic evidence, when properly identified and interpreted, serves as invaluable tools toward the assessment, mitigation, treatment, presentation and investigation of injuries and sudden deaths. This course will examine the significance and impact of forensic evidence from a sociological, psychological, legal, medical and criminal perspective. This course will be of particular interest to business, criminal justice, nursing and psychology majors.

## CRIM3326

3 Credits

### Rehabilitative Strategies

Criminal justice professionals are often charged with facilitating diversionary sentences, reduc-

ing recidivism, addressing a wide range of problem behaviors and easing transition from prison life into normal society. This course will examine the problems, contexts and techniques faced by criminal justice professionals charged with some facet of facilitating the rehabilitative process.

## CRIM3327

3 Credits

### File System Forensic Analysis and Investigation

This course is designed to introduce students to computer file system storage, analysis and retrieval. It provides an overview of computer foundations and associated investigative techniques beginning with an illustrated overview of contemporary volume and file systems, namely, crucial information for discovering hidden evidence, recovering deleted data and validating computer forensic tools. Students will investigate and describe data structures, analyze examples of disk images, provide advanced investigation scenarios and use today's most valuable open-source file system analysis tools. Prerequisite: CRIM2218 Computer Technologies and Cyber Crime, CRIM2235 Cyber Crime or CRIM3301 Computer Technology in the Criminal Justice System.

## CRIM3330

3 Credits

### Dynamics of Leadership

The objective of this course is to offer the student a comprehensive overview of the skills necessary to be an effective leader. The course will examine the various leadership styles that are utilized by both public- and private-sector leaders. Particular attention will be focused on the impact of both effective and ineffective leadership in an organization. The training and preparedness that both new and seasoned leaders undergo will be examined.

## CRIM3700

3 Credits

### Asset Protection, Vulnerabilities and Technologies

In the context of new and developing roles of security leaders, this course examines three critical components for managing a security department: security-prevention methods, vulnerability and threat assessments, protection of information and computer technologies. Topics covered include principles of prevention, management systems, vulnerability and criticality, risk management, tactics and countermeasures, identification and disposition of abusers, loss prevention, identification and controls and computer security and countermeasures.

## CRIM3890

3 Credits

### Legal and Analytical Reasoning

The objective of this course is to examine the cognitive processes associated with critical thinking and analytical reasoning, which represent important skills and competencies that

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underscore the effectiveness of practitioners within America's legal and criminal justice system. While the concepts and principles of this course will be borrowed from formal logic, critical thinking and a range of other disciplines, the application of these ideas are specific to the requirements of the Law School Admission Test (LSAT) and other standardized instruments required for graduate and law school admissions.

## CRIM4010

3 Credits

### Computer Forensic, Software and Hardware Applications

This course examines the skills necessary to launch and complete a successful computer forensic investigation utilizing the latest software and hardware applications. Students will learn how to conduct high-tech investigations — from acquiring digital evidence to reporting its findings. This course further highlights the objectives of the International Association of Computer Investigative Specialists (IACIS) certification to provide credible, standards-based information. Prerequisite: CRIM3327 File System Forensic Analysis and Investigation.

## CRIM4405

3 Credits

### Criminal Justice Capstone Seminar

This course is specifically designed for criminal justice majors nearing completion of their undergraduate studies. Designed to be highly engaging and interactive, this course provides a cogent yet comprehensive synthesis, recapitulations and critical analysis of the criminal justice system. The first half of the semester consists of a series of independent and collaborative research projects that will facilitate a critical analysis and critique of the United States criminal justice system from a theoretical and operational perspective. The second half of the semester is designed to provide for an introspective reflection and assessment of a student's undergraduate studies and how that translates to planning and preparing for one's personal and professional life after college.

## CRIM4430

1–3 Credits

### Selected Studies in Criminal Justice and Legal Studies

This course covers topics of special interest to criminal justice students for which no formal course is offered. A full description of these courses can be obtained at the School of Criminal Justice, Political Science and International Studies.

## CRIM4700

3 Credits

### Security and Personnel Management and Administration

This class is designed to give security personnel at all levels a fresh insight into current manage-

ment, leadership and supervision theories and practices. It provides a rigorous and comprehensive understanding of the multidimensional aspects for effective and efficient supervision, management, administration and leadership of private security organizations.

## CRIM4800

1–3 Credits

### Independent Study

Independent study under the direction of a specific faculty member after consultation with the school director. Limited to a total of 6 credits.

# Dance

## School of Art and Media Studies

## DAN1230

3 Credits

### World Dance Appreciation and Practice

This introductory course examines, through theory and practice, the techniques and philosophy of various partnership dances. Students will learn the basic steps and turn patterns of various dances, emphasizing the central roles of leading/following, rhythm familiarization and body movement.

# Economics

## School of Criminal Justice, Political Science and International Studies

## ECON2103

3 Credits

### Introduction to Economics

Survey of economic concepts and vocabulary that requires a minimal amount of mathematics. The course focuses on modern questions such as markets and regulations, trade and tariffs, distribution and redistribution, supply and demand, fiscal and monetary policy and their roles in the global economy.

# Education

## Peter Sammartino School of Education

## EDUC1108

3 Credits

### Seminar in Professional Practice I: The Teacher's Role in School and Community

Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: human relations in the school and community, education in American society and organizational process and behavior within the context of the school and community.

## EDUC1433

1 Credit

### Basic Technology for College Students

Software programs and hardware devices are introduced to students for the purpose of assisting them with a variety of difficulties. The overall focus is to help students get acquainted with the types of technology that are available and to understand which products best fit their learning profiles. Note: Only open to Regional Center for Learning Disabilities students.

## EDUC2202

3 Credits

### Development of Children with and without Disabilities

This course will provide an overview of the developmental changes that can be expected from early childhood through adolescence and the role that contexts, especially schools, play in promoting this development. Physical, linguistic, cognitive and socio-emotional development of children and adolescents will be discussed. Normative development in these areas will be used as a standpoint from which to examine atypical development (mild, moderate and severe disabilities, including autism spectrum disorders). This course will also provide an overview of the role that families, peers and schools play in influencing the development of children with and without disabilities.

## EDUC2207

3 Credits

### Introduction to Special Education and Students with Disabilities Including Autism Spectrum Disorder

This course will provide an overview of historical legislative decisions that mandate special education and discuss how these mandates drive current practice in special education. Processes for referring, identifying and serving children who are eligible for special education services will be discussed. Physical, social, cognitive and behavioral characteristics of students with disabilities (including autism spectrum disorders) will be described. Course participants will learn to plan, adapt and implement effective instruction and assessment to facilitate academic achievement for learners with disabilities.

## EDUC2208

3 Credits

### Classroom Management and Positive Behavioral Supports

This course will provide an overview of the common types of school-based challenging behavior and major theories of behavior. Best practices in school-wide, classroom and individual behavior management will be discussed, with a focus on positive behavior interventions and supports as well as family involvement. This course is designed to prepare educators to effectively use functional behavior assessment to



develop behavior management interventions when working with students with disabilities.

**EDUC2209**  
**3 Credits**

**Seminar in Professional Practice II: Teachers as Educational Leaders**

Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: teacher as a reflective practitioner, teacher as a professional and teacher as a leader in the school community. A 0-credit lab to be used for Praxis preparation. Prerequisite: EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community.

**EDUC2294**  
**2 Credits**

**Metacognitive Skills II**

Metacognitive skills include psychosocial topics. There are units on interpersonal skills, advocacy skills, motivation, relaxation techniques, stress management, behavior modification and metacognitive awareness of specific learning disabilities in terms of affective and academic manifestations. The course includes a unit on career planning. Note: Open only to Regional Center for Learning Disabilities students.

*Spring*

**EDUC2401, EDUC2402**

**1 Credit Each Semester**  
**Field Experience I, II**

On-site field experiences (30 hours each) in public schools and classrooms, focusing on their function, structure and curricula. Prerequisite: corresponding seminar in professional practice.

**EDUC3309**  
**3 Credits**

**Seminar in Professional Practice III: The Functions of Teaching**

Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: reflection and action research; diversity in the classroom; teacher as a decision-maker, planner, manager and problem solver; curriculum, instruction and assessment. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community and EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders.

**EDUC3310**  
**0 Credits**

**Praxis Review**

This course will focus on test-preparation skills and strategies that will help students prepare for the Praxis II Exam required for initial teacher certification in elementary education. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community and EDUC2209

Seminar in Professional Practice II: Teachers as Educational Leaders.

**EDUC3403**  
**2 Credits**

**Field Experience III**

On-site field experience (60 hours) in public school classrooms, focusing on curricula, instruction and students involved in the learning process; concurrent with junior-year graduate-level education course work in elementary or secondary specialization. Students are assigned a teacher mentor and are expected to prepare and teach formal lessons and conduct a student case study. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher's Role in School and Community; EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders; EDUC2401, EDUC2402 Field Experience I, II; and EDUC3309 Seminar in Professional Practice III: The Functions of Teaching. Corequisites: approved graduate education courses in elementary or secondary specialization.

**EDUC3404**

**2-3 Credits**

**Field Experience IV: Applied Field Research**

Field experience in senior year designed as a culminating experience to undergraduate course work prior to apprenticeship (student) teaching. Emphasis on application of field research and the knowledge base developed in previous course work and field experiences to classroom/instructional practice. The student is placed in a school(s) with an assigned school-based teacher mentor. While in the field (minimum 60 hours), the preservice teacher conducts a research study on the topic of his/her choice (subject to adviser approval) and is required to prepare a final research report on the study and its application to the classroom and instructional practice. An on-site visit/observation of formal teaching also is required by a School of Education faculty supervisor. Prerequisite: EDUC3403 Field Experience III. Pre/Corequisites: approved graduate education courses in elementary or secondary specialization.

**EDUC3405**

**2-3 Credits**

**Field Experience — Global**

This course will give students the opportunity to conduct a field experience in a school outside the United States. Students will interact with staff and students in an international school and will be exposed to new teaching strategies. Prerequisites: EDUC2401, EDUC2402 Field Experience I, II.

**EDUC3406**

**2-3 Credits**

**Field Experience Global — Japan**

This course will give students the opportunity to conduct a comparative field experience in the

United States and Japan. Students will observe instructional approaches and methodologies used in Japan and in the United States. The course requires seminar meetings on campus and a study-abroad portion to Japan. Prerequisites: EDUC2401, EDUC2402 Field Experience I, II.

**EDUC4430**  
**2 Credits**

**Metacognitive Strategies I**

An interdisciplinary course focusing on the development of metacognitive strategies which facilitate academic learning, including note taking, time management, visualization techniques, relaxation techniques and critical decision-making skills. Classroom instruction, discussion and application. Note: Open only to Regional Center for Learning Disabilities students.

**EDUC4431**

**1 Credit**

**Introduction to Research Skills**

Developing research skills. Strategies for locating information, evaluating sources and writing citations. Formulating research questions and developing literature reviews. Prerequisite: EDUC2294 Metacognitive Skills II.

**EDUC4432**

**1 Credit**

**English Language Structure: Application to Text**

Structure, organization, logic and usage of the English language. Understanding of the English language as it applies to encoding, decoding, written expression and comprehension. Analysis of the origin of the English vocabulary.

**EDUC4800**

**1-3 Credits Each Semester**

**Independent Study in Education**

Special projects, readings and research approved by the student's academic adviser and the director of the School of Education.

**Graduate Courses**

Students will take selected graduate courses in education with the approval of the adviser, subject to review of the student's academic standing (cumulative GPR) and completion of appropriate prerequisites. Titles and sequence of graduate education courses taken in the junior and senior years are listed in the Combined Degrees/Accelerated Programs section in this *Bulletin*. Interested students should see the *Graduate Studies Bulletin* for a list of courses and descriptions.

# Electrical Engineering

University College: Arts • Sciences • Professional Studies  
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## Electrical Engineering

*Lee Gildart and Oswald Haase*  
**School of Computer Sciences and Engineering**

**EENG2221**

**4 Credits**

**Lecture/Laboratory 5 Hours**  
**Signals and Systems I**

Circuit elements and laws. DC Circuits. Analysis methods. Network theorems. Operational amplifiers. Energy storage elements. Transient and forced response. Integrated laboratory experience. Prerequisites: MATH2202 Calculus II and PHYS2204 University Physics II.  
*Fall* *Fee*

**EENG2222**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Signals and Systems II**

Sinusoidal forcing functions, phasors and impedance. Steady-state response. Power calculations. Resonance. Coupled circuits. Introduction to Laplace transforms. Two-port circuits. Integrated laboratory experience. Prerequisites: EENG2221 Signals and Systems I and MATH2210 Differential Equations (or permission of instructor).  
*Spring* *Fee*

**EENG2287**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Microprocessor System Design I**

Introduction to microprocessors and microcomputers. Software architecture of processors: memory addressing, data types, register organization. Assembly-language programming and debugging. Integrated laboratory experience. Prerequisite: ENGR2286 Digital System Design.  
*Fall* *Fee*

**EENG2801**

**3 Credits**

**Computer Engineering and Telecommunications**

AC and DC circuits. Integrated circuits and amplifiers. Transducers and instrumentation. Analog and digital systems. Microprocessors and microprocessor systems. Transmission media. Telecommunication systems and applications. For nonelectrical engineering majors.

**EENG3223**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Linear Systems**

Classification of signals and systems. Linear Time-Invariant Systems. Time-domain analysis.

Laplace transform techniques. Frequency-domain analysis. Z-transform analysis for discrete systems. Integrated laboratory experience. Prerequisites: EENG2222 Signals and Systems II and MATH2210 Differential Equations (or permission of instructor).  
*Fall* *Fee*

**EENG3224**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Digital Signal Processing**

Discrete-time signals and systems. Convolution. Z-transform. Discrete-time Fourier transform. Discrete Fourier transform (DFT). Design of digital filters. Applications. Integrated laboratory experience. Prerequisite: EENG3223 Linear Systems or permission of instructor.  
*Spring* *Fee*

**EENG3244**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Electromagnetic Fields and Waves**

Electrical and magnetic fields, Maxwell's equations, boundary conditions, plane waves, guided waves in transmission lines and waveguides, impedance matching by use of a Smith chart, antenna and radiation, considerations in high-frequency circuits. Integrated laboratory experience. Prerequisites: MATH3541 Advanced Engineering Mathematics and PHYS2204 University Physics II.  
*Fall* *Fee*

**EENG3265**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Electronics I**

Basics of operational amplifiers. Selected operational amplifier applications. Selected integrated circuits and their applications. Integrated laboratory experience. Prerequisite: EENG2222 Signals and Systems II or permission of instructor. (Equivalent to EGTG2265 Electronics I.)

**EENG3266**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Electronics II**

Diodes and circuit applications. Bipolar junction transistors and field effect transistors and their circuit applications. Low-frequency amplifiers using small-signal models. Biasing, integrated laboratory experience. Prerequisite: EENG3265 Electronics I or permission of instructor. (Equivalent to EGTE3266 Electronics II.)

**EENG3267**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Electronics III**

Integrated circuit-building blocks. Multistage, differential and power amplifiers. Frequency

response. Feedback. Oscillators. Digital electronics. Integrated laboratory experience. Prerequisites: EENG2222 Signals and Systems II and EENG3266 Electronics II. (Equivalent to EGTE3267 Electronics III.)

**EENG3288**

**3 Credits**

**Lecture/Laboratory 4 Hours**  
**Microprocessor System Design II**

Microprocessor and microcontroller architectures. Input/output, interrupts and timers. Programming of parallel ports, serial communication interfaces. Integrated laboratory experience. Prerequisite: EENG2287 Microprocessor System Design I.  
*Spring* *Fee*

**EENG4260**

**1 Credit**

**2 Contact Hours**

**Preparation for Electrical Engineering Project**

Research on choosing a design project, incorporating appropriate engineering standards and multiple realistic constraints and writing a project proposal for the electrical engineering senior project. Prerequisite: senior status.  
*Fall*

**EENG4268**

**2 Credits**

**2 Contact Hours**

**Electrical Engineering Project**

An independent design project is carried out under the supervision of a faculty member. Prerequisite: EENG4260 Preparation for Electrical Engineering Project.  
*Spring* *Fee*

**EENG4321**

**3 Credits**

**Engineering Optics I**

Laws of reflection and refraction. Matrix treatment of simple optical systems. Design of optical instruments. Imaging errors. Waves and superposition. Interference of light. Wavefront and amplitude division interferometry. Diffraction. Polarization. Prerequisites: MATH2210 Differential Equations and PHYS2204 University Physics II.  
*Fee*

**EENG4322**

**3 Credits**

**Engineering Optics II**

Topics of current interest in applied engineering optics. Introduction to lasers and fiber optical systems, optical interferometry and holography. Design considerations in multilayer filters, Fresnel's equations, optical properties of materials and Fourier optics. Prerequisite: EENG4321 Engineering Optics I.  
*Fee*

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## EENG4525

3 Credits

### Lasers

Basic principles of lasers and their applications in optical communication systems. Laser sources, laser operation, modulation and design of systems incorporating lasers. Emphasis on lasers useful in fiber optical systems such as solid-state infrared devices. Prerequisite: EENG3244 Electromagnetic Fields and Waves.

*Fee*

## EENG4526

1 Credit

### Photonics Laboratory

Experiments and projects selected from topics in optical design, digital image processing, optical signal processing, holography, optical filtering and interferometry. Prerequisite: EENG4322 Engineering Optics II. Corequisites: EENG4328 Optical Design and EENG4392 Optical Communications.

*Fee*

## EENG4528

2 Credits

### Optical Design

An introduction to the principles and applications of optical system design, including computerized optical design. Prerequisite: EENG4322 Engineering Optics II. Corequisite: EENG4326 Photonics Laboratory.

*Fee*

## EENG4535

3 Credits

### Microelectronics and Fundamentals of Very Large Scale Integration (VLSI)

Basic processing technology, layout fundamentals, passive components and their parasitic effects, BJTs, MOSFETs, nMOS circuits. Prerequisite: EENG3266 Electronics II.

## EENG4536

3 Credits

### Very Large Scale Integration and Projects

Circuit design and concepts, nMOS circuits, layout guidelines, programmable logic arrays, finite state machines, system design and timing, design and testing of a VLSI circuit (project). Prerequisite: EENG4335 Microelectronics and Fundamentals of Very Large Scale Integration (VLSI).

## EENG4541

3 Credits

### Lecture/Laboratory 4 hours

### Communication Systems

Signal analysis, signal transmission, linear modulation, angle modulation, pulse modulation, data transmission, multiplexing. Integrated laboratory experience. Prerequisite: EENG3223 Linear Systems.

*Spring*

*Fee*

## EENG4542

3 Credits

### Lecture/Laboratory 4 hours

### Data Communications and Computer Networks

Data encoding and transmission, error detection and correction, data encryption and network security. Network architecture and model. Circuit and packet switching, optimal routing, wide and local area networks, internet protocols. Integrated laboratory experience. Prerequisite: Completion of sixth semester or permission of instructor.

*Fall*

*Fee*

## EENG4547

3 Credits

### Wireless Communication

Practical and theoretical aspects of wireless communication, system design with particular emphasis on mobile communication, cellular concepts, multiuser channels, propagation characteristics, modulation and encoding. Prerequisite: completion of the sixth semester.

*Spring*

*Fee*

## EENG4555

3 Credits

### Computer Control and Interfacing

Transducers and sensors, signal acquisition and conditioning, analog signal processing, data conversion, A/D and D/A conversion, I/O ports, interface design, process controllers, interrupts, higher-level languages for control. Prerequisite: EENG2287 Microprocessor System Design I.

*Fee*

## EENG4554

3 Credits

### Knowledge Engineering I

Structure of neural network and fuzzy logic systems with applications in signal processing, pattern recognition, process control and optimization. Prerequisite: completion of the sixth semester.

*Fee*

## EENG4555

3 Credits

### Analog and Digital Control

Closed loop feedback systems, general feedback theory, control system design, stability, sensitivity, error response, root-locus, compensation techniques, digital control, discrete time systems, design in Z-domain, controllability, optimal control. Prerequisite: EENG3223 Linear Systems.

*Fall*

## EENG4556

3 Credits

### Knowledge Engineering II

Principles of robot design, search methods, automated assembly operations, learning para-

digms for automated environments. Prerequisites: EENG4354 Knowledge Engineering I.

*Fee*

## EENG4562

3 Credits

### Electronics Instrumentation

Study of circuits and functions of electronic instruments for indicating and monitoring. Electronic voltmeters and multimeters, potentiometer and galvanometer types of recorders, transducers in industrial and research instrumentation, frequency and time standards and measurement, signal generators, pulse generators, swept frequency sources. Prerequisite: EENG3265 Electronics I.

## EENG4575

3 Credits

### Lecture/Laboratory 4 hours

### Electrical Energy Conversion

General considerations of electromagnetic phenomena and magnetic circuits. Exercises with ferromagnetic loops and air gap. Transformer theory — equivalent circuits and phasors. Regulation and efficiency evaluation, rotating machinery, DC and three-phase systems. Power relationships, operating characteristics. Prerequisite: EENG2222 Signals and Systems II or EGTE2216 Circuits II.

*Fall*

## EENG4576

3 Credits

### Power Control Systems

Technical aspects of electric systems that transmit power from the generator to the loads. Transmission-line calculations. Fault calculation. Power flow studies. Prerequisite: EENG4375 Electrical Energy Conversion or permission of instructor.

## EENG4581

3 Credits

### Computer-aided Analysis and Design I

Use of CAD software in analyzing and designing both analog and digital circuits. Prerequisite: completion of the sixth semester. (Equivalent to EGTE4381 Computer-aided Analysis and Design.)

## EENG4582

3 Credits

### Computer-aided Analysis and Design II

Use of CAD software and modern programming languages in solving electrical engineering problems. Prerequisites: EENG4581 Computer-aided Analysis and Design I and completion of the sixth semester.

*Fee*

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## EENG4385

3 Credits

### Modern Manufacturing Systems

Basic engineering principles of analysis and design of industrial robotic manipulators, including configuration kinematics, motion kinematics status, dynamics and control.

## EENG4392

3 Credits

### Optical Communications

Introduction to optical communications, sources and detectors, fiber-optic systems, optical waveguide components, switches and couplers, multiplexers, lasers, system design. Prerequisite: completion of the sixth semester.

## EENG4394

3 Credits

### Electronic Telecommunications

Network and terminals, global reach, radio channels, cables and waveguides, communication satellites, digital channels and PCM, signal composition, time division, options in network design. Prerequisite: completion of the sixth semester.

## EENG4396

3 Credits

### Telecommunications Applications

Introduction to the practical use of computer networks and telecommunication technologies for business and instructional applications. Study of data communications and networking design and analysis and communication equipment and services in the context of the workplace. Use of the internet and the design and presentation of resources via the World Wide Web. Prerequisite: basic knowledge of data processing.

## EENG4421

3 Credits

### Honors Externship in Electrical Engineering

A supervised industrial experience for selected students. Prerequisite: permission of the school director.

## EENG4430

3 Credits Each Semester

### Special Topics in Electrical Engineering

A study of subjects of current interest in electrical engineering.

## EENG4498, EENG4499

3 Credits Each Semester

### Co-op in Electrical Engineering

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

## EENG4800

1–3 Credits Each Semester

### Independent Study in Electrical Engineering

Independent study under the direction of a specific faculty member after consultation with the school director.

## EENG4875

1–4 Credits

### Honors in Electrical Engineering

Independent study in electrical engineering for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

## ENGR1204

3 Credits

Lecture/Laboratory 4 hours

### Programming Languages in Engineering

MATLAB programming applied to engineering problem solving. Integrated laboratory experience.

Fall, Spring

## ENGR1223

2 Credits

Lecture/Laboratory 4 hours

### Introduction to CAD

Introduction to the practical use of computer hardware and software for drafting applications. Corequisite: MATH1107 Precalculus or equivalent.

Spring

Fee

## ENGR1301

3 Credits

Lecture/Laboratory 5 hours

### Engineering Practices, Graphics and Design

Analytical techniques: equations, graphics, statistics. Introduction to computer-aided analysis software. Engineering applications. Introduction to design. Fundamentals of graphics as applied to sketching and drafting. Professionalism and ethics. Integrated laboratory experience.

Fall, Spring

## ENGR2210

3 Credits

### Technical Communications

Overview of the writing, editing, research and design principles of technical and professional communication. Students will learn how to gather, organize and present information effectively. Course includes business and technical documentation, including online tools; oral reports and public speaking; teamwork and participation in group meetings; use of visuals to communicate material; professional, ethical and social responsibilities; and research techniques

using the library and the internet.

Prerequisite: ENWR1001 Composition I:

Rhetoric and Inquiry.

Fall, Spring

## ENGR2221

3 Credits

### Statics

Statics of particles and rigid bodies, equivalent force systems, equilibrium of rigid bodies, centroids and center of gravity, analysis of trusses and frames, forces in beams and machine parts, friction and moments of inertia. Prerequisites: MATH1201 Calculus I and PHYS2203 University Physics I.

University Physics I.

Fall

## ENGR2228

3 Credits

Lecture/Laboratory 4 hours

### Strength of Materials

Shear, moments, stresses, bending, torsional shear, moment and shear diagrams, deflections, stress strain, bolted and welded joints, combined loading and column. Prerequisite: ENGR2221 Statics.

Spring

## ENGR2286

3 Credits

Lecture/Laboratory 4 hours

### Digital System Design

Binary codes, gates and flip-flops, registers and counters, adders and ALUs, analysis and design of combinational and sequential circuits. Logic simulation. Logic families. Integrated laboratory experience. (Equivalent to EGTG2286 Digital System Design.)

Fall, Spring

Fee

## ENGR3000

3 Credits

Lecture/Laboratory 4 hours

### Modern Technologies: Principles, Applications and Impacts

This course provides a systematic introduction to modern technologies — their history, evolutionary development, principles and applications. The influences, impacts and ethical implications of technology on the economy, politics, culture, environment, society and the world are investigated. Attention is given to the relationships and connections of technology to other fields. Students learn the basic principles underlying the technologies, how to apply and manage technologies and assess their impacts. Critical thinking and problem-solving skills used in research, design, development, invention and innovation are emphasized. The laboratory experiences help the students develop the experimental research, creative and design skills.

Fall, Spring

Fee

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## ENGR3200

3 Credits

Lecture/Laboratory 4 hours

### Advanced Engineering Programming

Use of computers for design, analysis, control and decision making. C++ concepts. Integrated laboratory experience. Prerequisite: ENGR1204 Programming Languages in Engineering.

Fall

## ENGR3211, ENGR3212

6 Credits (3 Credits Each Semester)

### Engineering Materials I, II

Two-course sequence covering properties of metals and alloys, semiconductors, ceramics, glasses and polymers. Crystal structure, structural defects, alloying and phase diagrams.

Prerequisite for ENGR3211 Engineering Materials I is CHEM1201 General Chemistry I. ENGR3211 Engineering Materials I is a prerequisite for ENGR3212 Engineering Materials II. Fall (ENGR3211), Spring (ENGR3212)

## ENGR3341

3 Credits

### Advanced Engineering Mathematics

Vector algebra, vector calculus, gradient, divergence, curl. Line and surface integrals, Green's theorem, Stoke's theorem, divergence theorem. Vector spaces, dot products, matrices, linear equations, determinants, eigenvalues, diagonalization. Complex analysis, complex integration, power series, residue theorem. Prerequisite: MATH2203 Calculus III or permission of instructor.

Spring

## ENGR3351

3 Credits

Lecture/Laboratory 4 hours

### Applied Thermodynamics

Introduction to the basic concepts of thermodynamics. Zeroth Law. Work and heat. First Law, Second Law, Carnot theorem and entropy. Applications of gas and steam cycles to open- and closed-loop systems, such as gasoline and diesel engines, and steam turbines.

Principles of refrigeration and air conditioning.

Prerequisites: CHEM1201 General Chemistry I, MATH2202 Calculus II and PHYS2204 University Physics II.

Spring

## ENGR3431

3 Credits

### Dynamics

Kinematics, kinetics, linear, angular, plane motion. Work, energy, power, impulse and momentum. Prerequisites: ENGR2221 Statics and MATH2202 Calculus II.

Spring

## ENGR4000

3 Credits

### History of Technology

Ways in which technology contributed to the building of a global society. Technology as a central player in the larger political, cultural and economic trends during various periods.

## ENGR4001

2 Credits

3 Contact Hours

### FE/EIT Exam Preparation I

First part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students' curricula. Prerequisite: senior standing.

## ENGR4002

1 Credit

2 Contact Hours

### FE/EIT Exam Preparation II

Second part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students' curricula. Prerequisite: ENGR4001 FE/EIT Exam Preparation I.

## ENGR4210

3 Credits

### Managerial and Engineering Economic Analysis

Concepts and techniques to evaluate the worth of technical systems, products and services in relation to their cost. Time value of money, cash flow equivalence, economic decision making among alternative courses of action, depreciation and taxes, replacement and break-even analysis. Prerequisite: MATH2202 Calculus II or permission of instructor. (Equivalent to EGTG4269 Management and Engineering Economics.)

Fall

## ENGR4221

3 Credits

### Engineering Statistics and Reliability

Statistics, regression, probability. Normal distribution. Poisson distributions and reliability as applied to engineering decisions, performance and quality control. Corequisite: MATH2202 Calculus II or permission of instructor.

Spring

## ENGR4254

3 Credits

Lecture/Laboratory 4 hours

### Fluid Mechanics

Applied fluid mechanics, applications of

hydraulic and pneumatic control amplification and power circuits. Introduction to fluidics.

Prerequisite: ENGR2221 Statics. Corequisite: MATH2210 Differential Equations.

Fall

## ENGR4263

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Project Management in Engineering and Technology

This course covers the basic concepts, models and applications for successful management of projects in engineering and technology. This will include rationale for project management, project-management process, project-selection strategy, organizational concepts, project planning, scheduling and resource allocation, cost estimating, project monitoring, evaluation and control, project-earned value management and project termination. Emphasis will be on teamwork and student-project presentation.

Fee

## ENGR4432

3 Credits

### Selected Studies in Engineering

Selected studies of engineering topics or in an area of engineering.

## ENGR4800

3 Credits

### Independent Study in Engineering

Independent study of engineering topics or in an area of engineering under the direction of a specific faculty member after consultation with the school director.

# Engineering Technology

Lee Gildart and Oswald Haase  
School of Computer Sciences and Engineering

## Civil and Construction Engineering Technology

### EGTC1205, EGTC1206

6 Credits (3 Credits Each Semester)

Lecture 2 hours; Laboratory 2 hours

### Surveying I and II

Surveying as applied to the construction industry. Such areas as layout and control of buildings and roads, earthwork measurements, horizontal and vertical curves, superelevation on curves, computer applications to surveying and electronic measurements will be studied. Prerequisite for EGTC1205 Surveying I is MATH1107 Precalculus. EGTC1205 Surveying I is a prerequisite for EGTC1206 Surveying II.

Fall (EGTC1205), Spring (EGTC1206) Fee

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## EGTC1223

**2 Credits**

**Lecture 1 hour; Laboratory 3 hours**

### Introduction to CAD

Introduction to the practical use of computer hardware and software for drafting applications. Corequisite: MATH1107 Precalculus.

*Spring*

*Fee*

## EGTC1245

**3 Credits**

**Lecture 2 hours; Laboratory 2 hours**

### Construction Materials and Systems

An introduction to the methods, equipment and personnel employed in constructing buildings and subsystems of buildings such as foundations, walls, floors and roofs. The types and physical properties of construction materials.

*Fall, Spring*

## EGTC2246

**3 Credits**

**Lecture 2 hours; Laboratory 2 hours**

### Timber Structures and General Building Systems

Wood used in home building: columns, girders, beams, joists, rafters, studs, joist and stud bridging. Use of charts and tables for practical applications of theory as to design, quality and strength of various industrial wood shapes. AutoCad applications in representing general building systems of timber structures, exterior shell systems, conventional schematics of HVAC and electric, plumbing, wastewater and drainage systems. Prerequisites: EGTC1223 Introduction to CAD, EGTC1245 Construction Materials and Systems and EGTG2228 Strength of Materials.

*Spring*

*Fee*

## EGTC3250

**3 Credits**

### Structural Analysis

Classical analysis methods of determinate and indeterminate structures. Deflection calculation of beams and trusses, work-energy methods, influence line concept for moving loads.

Prerequisite: EGTG2228 Strength of Materials.

*Fall*

## EGTC3256

**3 Credits**

### Steel Structures

The application of the principles of statics and strength of materials in the design and analysis of structural steel beams, columns, trusses and frames, connections and base plates, all in accordance with current AISC specifications. Prerequisite: EGTG2228 Strength of Materials.

*Fall*

## EGTC3257

**3 Credits**

### Concrete Structures

The analysis and design of reinforced concrete beams, girders, slabs and columns, all in accor-

dance with current ACI code and standards.

Prerequisite: EGTG2228 Strength of Materials.

*Fall*

## EGTC3261

**3 Credits**

### Estimating I

The development of a procedure (including check and balance) for preparing a quantity survey of materials, labor and equipment for both general and specialty contractors. Prerequisite: MATH1107 Precalculus.

*Fall*

## EGTC3262

**3 Credits**

### Estimating II

A continuation of EGTC3261 Estimating I by adding the cost of production by summarizing overhead, expenses and profit to the sum of labor and materials cost. Prerequisite: EGTC3261 Estimating I.

*Spring*

## EGTC3270

**3 Credits**

### Environmental and Land-use Planning

Environmental laws and pollution, environmental-impact analysis, land-usage laws and economics will be covered. Prerequisite: ENGR1301 Engineering Practices, Graphics and Design.

*Spring*

## EGTC3271

**3 Credits**

### Construction Labor

A broad overview of the construction industry comparing and contrasting the current union and open-shop wages and work practices. Apprenticeships, journeymen training programs; Davis-Bacon Act, business agents, organization and jurisdiction of crafts; and work rules. Prerequisite: EGTG2210 Technical Communications.

## EGTC3274

**3 Credits**

### Advanced Structural Analysis

Elastic analysis of statically indeterminate structures using force and deformation methods.

Prerequisite: EGTG2228 Strength of Materials.

*Spring*

## EGTC4241

**3 Credits**

**Lecture 2 hours; Laboratory 2 hours**

### Soil Mechanics

The mechanics of soil and rock masses as applied to construction, with emphasis on footing and pile foundations, retaining walls, bulkheads, fills, embankments and the control of landslides. Identification, classification and testing of the physical properties of soils. Prerequisite: EGTG2228 Strength of Materials.

*Fall*

*Fee*

## EGTC4242

**3 Credits**

### Foundations

Design of concrete and reinforced concrete footings and foundations and retaining walls. Bearing, friction and combined pile, pile caps and sheet piling. Prerequisite: EGTC4241 Soil Mechanics.

*Spring*

## EGTC4260

**3 Credits**

### Contracts and Specifications

A study of codes and specifications required in engineering contracts. General contracts, sub-contracts, construction management contracts. Contract Law. Prerequisites: EGTC1245 Construction Materials and Systems and EGTG2210 Technical Communications.

*Spring*

## EGTC4263, EGTC4264

**6 Credits (3 Credits Each Semester)**

**Lecture 2 hours; Laboratory 2 hours**

### Project Management and Control I and II

The use and management of equipment, personnel and materials for construction projects. Planning and control through the use of methods involving CPM, bar charts, purchasing, PERT and construction models. Labor relations and safety requirements (OSHA). Prerequisite: EGTC3261 Estimating I or approval of adviser. EGTC4263 Project Management and Control I is a prerequisite for EGTC4264 Project Management and Control II.

*Fall (EGTC4263), Spring (EGTC4264)*

## EGTC4265

**3 Credits**

### Construction Practices I

Earthmoving, compaction and soil improvement. Construction dewatering, temporary and earth-retaining structures. Rock drilling and explosives in construction. Construction inspection and quality-control assurance. Equipment selection and production. Temporary erosion control. Construction safety and jobsite procedures. Prerequisite: Seventh-semester standing or approval of adviser.

*Fall*

## EGTC4266

**3 Credits**

### Construction Practices II

Concrete practice: mixing, placing and curing. Concrete framework and form design. Paving and surfact treatments. Masonry, wood and steel construction practices. Compressed air and water systems. Lifting and rigging. Introduction to Green Building, LEED (Leadership in Energy and Environmental Design) certification and sustainable construction. Stormwater management and water quality. Prerequisite: EGTC4265 Construction Practices I or approval of adviser.

*Spring*

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## EGTC4272

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Advanced Steel Design

Design of a complete structural steel frame building including beams, floors, columns and connections; preparing design notes, structural drawings and structural drawings in accordance with codes, industry standards and AISC. LRFD method used. Prerequisite: EGTC3256 Steel Structures.

Spring

Fee

## EGTC4276

3 Credits

### Advanced Concrete Design

Design of a complete reinforced concrete building including beams, girders, slabs, columns and footings; preparing set of design notes, structural drawings and shop drawings. All in accordance with codes, industry standards and ACI. Prerequisite: EGTC3257 Concrete Structures.

Spring

## EGTC4320

3 Credits

### Highway Design

Highway and urban transportation systems. Organizations and associations. Planning. Driver, vehicle, traffic and road alignment, sight distances. Intersection and interchange design. Drainage details. Earthwork: calculations of volumes. Materials for roads and surfaces, bearing qualities. Computer applications. Term and laboratory projects assigned. Prerequisites: EGTC1206 Surveying II, EGTC3257 Concrete Structures and EGTG4254 Fluid Mechanics.

## EGTC4321

3 Credits

### Bridge Design

Loads. Maximum moments and shear in simple and continuous spans. Steel bridges: floor systems, concrete and steel floors. Beam and plate-girder bridges. Truss, concrete and prestressed concrete bridges. Railing design. Railroad bridges. Steel-plate-deck bridges, economic considerations. Box girders. Computer applications. Term project assigned. Prerequisite: EGTG2228 Strength of Materials.

## EGTC4322

3 Credits

### Hydraulic Design

Fluid flow in pipes, consideration for sewage and sludge. Special flow problems: culvert design and analysis, series and parallel pipe systems, pipe network. Drainage problems. Flow-measuring devices. Hydraulic machines, types of pumps. Open-flow channel, weirs, retention basins. Computer applications. Term and laboratory projects assigned. Prerequisite: EGTG4254 Fluid Mechanics.

## EGTC4323

3 Credits

### Seismic Design

Response of simple structures to earthquake motions. Design: general considerations. Lateral forces. Seismic forces for overturning moments and shear distribution. Damping. Horizontal and vertical excitation. Curtain wall buildings. Core walls. Detailing and quality control/computer applications. Prerequisites: EGTC3257 Concrete Structures and EGTG3431 Dynamics.

## EGTC4384

1 Credit

Lecture 1 hour; Laboratory 1 hour

### Construction Technology Design Project

Students will be assigned a project with the approval of the school director and to be conducted under the supervision of a faculty member. Oral presentation. Prerequisites: EGTC4241 Soil Mechanics, EGTG4263 Project Management and Control I, EGTG2210 Technical Communications and eighth-semester standing.

Fee

## EGTC4385

1 Credit

Lecture 1 hour; Laboratory 1 hour

### Civil Technology Design Project

Students will be assigned a project with the approval of the school director and to be conducted under the supervision of a faculty member. Oral presentation. Prerequisites: Senior standing and EGTG2210 Technical Communications.

Fee

## General Technology

### EGTG2201

3 Credits

#### Applied Calculus I

Applied differential and integral calculus stressing engineering applications. Prerequisite: MATH1107 Precalculus.

### EGTG2202

3 Credits

#### Applied Calculus II

Continuation of applied integration and introduction to functions of several variables. Emphasis on engineering applications. Prerequisite: EGTG2201 Applied Calculus I or MATH1201 Calculus I.

### EGTG2205

3 Credits

#### Applied Ordinary Differential Equations

Introduction to linear ordinary differential equations, Laplace transforms and Fourier analysis. Prerequisite: EGTG2202 Applied Calculus II or MATH2202 Calculus II.

## EGTG2210

3 Credits

### Technical Communications

Overview of the writing, editing, research and design principles of technical and professional communication. Students will learn how to gather, organize and present information effectively. Course includes business and technical documentation, including online tools; oral reports and public speaking; teamwork and participation in group meetings; use of visuals to communicate material; professional, ethical and social responsibilities; and research techniques using the library and the internet.

Prerequisite: ENWR1001 Composition I:

Rhetoric and Inquiry.

Fall, Spring

## EGTG2215

3 Credits

4 Contact Hours

### Circuits I

Circuit laws and theorems, DC circuits, inductance, capacitance.

Fall

## EGTG2221

3 Credits

### Statics

Statics of particles and rigid bodies, equivalent force systems, equilibrium of rigid bodies, centroids and center of gravity, analysis of trusses and frames, forces in beams and machine parts, friction and moments of inertia. Prerequisite: PHYS2101 General Physics I.

Fall

## EGTG2228

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Strength of Materials

Shear, moments, stresses, bending, torsional shear, moment and shear diagrams, deflections, stress strain, bolted and welded joints, combined loading and column. Prerequisite: EGTG2221 Statics.

Spring

Fee

## EGTG2265

3 Credits

Lecture/Laboratory 4 hours

### Electronics I

Basics of operational amplifiers. Selected operational amplifier applications. Selected integrated circuits and their applications. Integrated laboratory experience. Prerequisite: EGTE2216 Circuits II or permission of instructor. (Equivalent to EENG3265 Electronics I.)

## EGTG2286

3 Credits

Lecture/Laboratory 4 hours

### Digital System Design

Binary codes, gates and flip-flops, registers and counters, adders and ALUs, analysis and design of combinational and sequential circuits.

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Logic simulation. Logic families. Integrated laboratory experience. (Equivalent to ENGR2286 Digital System Design.)

Fall, Spring

*Fee*

## EGTG3211, EGTG3212

3 Credits

### Materials Technology I, II

A two-course sequence covering properties of metals and alloys, semiconductors, ceramics, glasses and polymers. Crystal structure, structural defects, alloying and phase diagrams. (Must be taken in proper sequence.) Prerequisites: PHYS2101, PHYS2102 General Physics I, II.

Fall (EGTG3211)

## EGTG3225

3 Credits

### Lecture 2 hours; Laboratory 2 hours Instrumentation

Introduction to the design of instrumentation systems. Study of thermal, mechanical, optical and magnetic sensor operation and applications. Design of analog and digital signal conditioning. Introduction to data-acquisition systems. Laboratory experimentation involving the design, bread-boarding and testing of signal-conditioning circuits and a selection of sensors and their applications. Prerequisites: EGTG2201 Applied Calculus I or MATH1201 Calculus I and EGTG2265 Electronics I.

Spring

*Fee*

## EGTG3351

3 Credits

### Lecture 2 hours; Laboratory 2 hours Applied Thermodynamics

Introduction to the basic concepts of thermodynamics. Applications of gas and steam cycles to open- and closed-loop systems, such as gasoline and diesel engines, and steam turbines. Principles of refrigeration and air conditioning. Prerequisites: PHYS2101, PHYS2102 General Physics I, II.

Spring

*Fee*

## EGTG3431

3 Credits

### Dynamics

Kinematics, kinetics, linear, angular, plane motion. Work, energy, power, impulse and momentum. Prerequisite: EGTG2221 Statics.

Spring

## EGTG4001

2 Credits

3 Contact Hours

### FE/EIT Exam Preparation I

First part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students' curricula. Prerequisite: senior standing.

Fall

## EGTG4002

1 Credit

2 Contact Hours

### FE/EIT Exam Preparation II

Second part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students' curricula. Prerequisite: EGTG4001 FE/EIT Exam Preparation I or approval of adviser.

Spring

## EGTG4221

3 Credits

### Engineering Statistics and Reliability

Statistics, regression, probability. Normal distribution. Poisson distributions and reliability as applied to engineering decisions, performance and quality control. Corequisite: EGTG2202 Applied Calculus II or MATH2202 Calculus II or permission of instructor.

Spring

## EGTG4224

3 Credits

### Lecture 2 hours; Laboratory 2 hours Process and Electro/Mechanical Control Systems Technology

The theory, components, operation and design of process and electro/mechanical control systems. Laboratory experimentation involving the design, simulation and testing of control-system components and complete systems. Prerequisites: EGTG2202 Applied Calculus II and EGTG3225 Instrumentation (or permission of instructor).

Fall

*Fee*

## EGTG4225

3 Credits

### Lecture 2 hours; Laboratory 2 hours Industrial Automation

Manufacturing systems and their mechanization: design and analysis on control systems for production, materials handling and inventory logistics. Manufacturing automation and robotics technologies (requirements analysis and design). Electromechanical hardware and computer control. Economics of robotics and machine vision. Prerequisite: EGTG4224 Process and Electro/Mechanical Control Systems Technology (or permission of instructor).

Spring

*Fee*

## EGTG4254

3 Credits

### Lecture 2 hours; Laboratory 2 hours Fluid Mechanics

Applied fluid mechanics, applications of hydraulic and pneumatic control amplification and power circuits. Introduction to fluidics. Prerequisites: PHYS2101, PHYS2102 General Physics I, II.

Fall

*Fee*

## EGTG4269

3 Credits

### Management and Engineering Economics

Concepts and techniques to evaluate the worth of technical systems, products and services in relation to their cost. Time value of money, cash flow equivalence, economic decision making among alternative courses of action, depreciation and taxes, replacement and break-even analysis. Prerequisite: EGTG2202 Applied Calculus II or MATH2202 Calculus II or permission of instructor. (Equivalent to ENGR4210 Managerial and Engineering Economic Analysis.)

Fall

## EGTG4340

3 Credits

### Manufacturing Systems

An engineering-design approach to optimizing a manufacturing system. Includes robotics, automation, just-in-time manufacturing for intermittent and continuous structures.

## EGTG4391

3 Credits

### Current Topics in Engineering Technology

Study of special topics of current interest in the area of engineering technology.

## EGTG4432

1-3 Credits

### Selected Studies in Engineering Technology

Studies in an area of engineering technology.

## EGTG4498, EGTG4499

3 Credits Each Semester

### Co-op in Engineering Technology

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

Fall, Spring

## EGTG4800

1-3 Credits

### Independent Study in Engineering Technology

Independent study under the direction of a specific faculty member after consultation with the school director.

## EGTG4875

3 Credits

### Honors: Engineering Technology

Independent study in engineering technology for students in the University Honors Program under the direction of a specific faculty member with the approval of the school director.



# Engineering Technology

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## Electrical Engineering Technology

EGTE2216

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Circuits II

Complex numbers, phasors, sinusoids, AC circuits, resonance, transformers, three-phase circuits, operational amplifiers. Prerequisite: EGTG2215 Circuits I.

Spring

Fee

EGTE2287

3 Credits

Lecture/Laboratory 4 hours

### Microprocessor System Design I

Introduction to microprocessors and microcomputers. Software architecture of processors: memory, addressing, data types, register organization. Assembly-language programming and debugging. Integrated laboratory experience. Prerequisite: EGTG2286 Digital System Design.

Fall

Fee

EGTE3049

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Fiber Optics Technology

The principles and applications of fiber optic technology. Review of optical laws; light propagation in a fiber. Fiber characteristics. Principles of fiber optic communication. Fiber optic components. Optical sources for communication, optical detectors. Design of a fiber optic communication system. Fiber sensors. Prerequisite: EGTG4049 Optical Technology II.

Fee

EGTE3051

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Laser Technology

Principles and applications of laser technology. Physical basics of lasers. Laser characteristics. Gas lasers, solid-state lasers, semiconductor lasers, laser accessories. Low-power laser applications. High-power laser applications. Laser safety. Prerequisite: EGTG4049 Optical Technology II.

Fee

EGTE3266

3 Credits

Lecture/Laboratory 4 hours

### Electronics II

Diodes and circuit applications. Bipolar junction transistors and field effect transistors and their circuit applications. Low-frequency amplifiers using small-signal models. Biasing, integrated laboratory experience. Prerequisite: EGTG2265 Electronics I or permission of instructor. (Equivalent to EENG3266 Electronics II.)

EGTE3267

3 Credits

Lecture/Laboratory 4 hours

### Electronics III

Integrated circuit-building blocks. Multistage, differential and power amplifiers. Frequency response. Feedback. Oscillators. Digital electronics. Integrated laboratory experience. Prerequisites: EGTG2216 Circuits II and EGTG3266 Electronics II. (Equivalent to EENG3267 Electronics III.)

EGTE3288

3 Credits

Lecture/Laboratory 4 hours

### Microprocessor System Design II

Microprocessor and microcomputer architectures. Input/output, interrupts and timers. Programming of parallel ports, serial communication interfaces. Integrated laboratory experience. Prerequisite: EGTG2287 Microprocessor System Design I.

Spring

Fee

EGTE3439

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Computer-assisted Circuits

Computer analysis of various circuits using PSPICE and other software packages, analysis of resonant circuits, operational amplifiers, passive filters, active filters, detailed theoretical and computer analysis of Bode plots and Fourier analysis. Prerequisite: EGTG2216 Circuits II.

EGTE4047

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Optical Technology I

Geometrical optics. Laws of reflection and refraction. Image formation by lenses and mirrors. Optical instruments. Physical optics, waves and superposition. Interference and diffraction of light. Applications in modern technology, such as fiber optics. Prerequisites: EGTG2201, EGTG2202 Applied Calculus I, II and PHYS2101, PHYS2102 General Physics I, II.

Fee

EGTE4049

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Optical Technology II

Wave optics. Polarization: fiber-optic system design. Fiber-optic components. Optical sources. Optical detectors. Fiber-optic communication. Fiber sensors. Applications of diffraction theory. Holography. Matrix treatment of simple optical systems. Prerequisite: EGTG4047 Optical Technology I.

Fee

EGTE4052

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Optical Measurements and Test Equipment I

Principles and applications of modern optical-test procedures. Basic principles of light measurement. Photometric measurement; radiometric measurement. Basic optical instruments: microscope, telescope and comparator. Prerequisite: EGTG3051 Laser Technology.

Fee

EGTE4054

3 Credits

Lecture 2 hours; Laboratory 2 hours

### Optical Measurements and Test Equipment II

Interference methods and the interferometer optical instruments for fiber optics: OTDR, polarization, beam profile, EIA test procedures. Prerequisite: EGTG4052 Optical Measurements and Test Equipment I.

Fee

EGTE4342

3 Credits

Lecture/Laboratory 4 hours

### Data Communications and Computer Networks

Data encoding and transmission, error detection and correction, data encryption and network security. Network architecture and model. Circuit and packet switching, optimal routing, wide and local area networks, internet protocols. Integrated laboratory experience. Prerequisite: completion of sixth semester or permission of instructor.

Fall

Fee

EGTE4345

3 Credits

### Microwave Technology

A study of microwave devices, techniques and applications. Topics include transmission lines, Smith charts, generation and detection of microwave devices. Prerequisite: EGTG2202 Applied Calculus II.

EGTE4381

3 Credits

### Computer-aided Analysis and Design

Use of CAD software in analyzing and designing both analog and digital circuits. Prerequisite: completion of the sixth semester. (Equivalent to EENG4381 Computer-aided Analysis and Design I.)

EGTE4387

1 Credit

Lecture 1 hour; Laboratory 1 hour

### Electrical Technology Design Project

Capstone design-project course in electrical technology. Student must be within 16 credits of graduation and have approval of project propos-

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al prior to registering. Oral presentation. Prerequisites: EGTE3267 Electronics III or permission of instructor and EGTG2210 Technical Communications.

*Fee*

## Mechanical Engineering Technology

EGTM2252  
3 Credits

Lecture 2 hours; Laboratory 2 hours  
**Mechanical Measurement and Devices**

Study of measurement of distance, work, energy, force, pressure and thermal quantities. Use of testing machines and industrial mechanical components. Corequisite: MATH1105 College Algebra or higher.

Fall

*Fee*

EGTM2255  
3 Credits

Lecture 2 hours; Laboratory 2 hours  
**Manufacturing Processes**

Study of methods in manufacturing. Theory and practice of turning, machining, drilling, etc., of metals and other materials.

Spring

*Fee*

EGTM3248  
3 Credits

Lecture 2 hours; Laboratory 2 hours  
**Mechanical Technology Design I**

Principles of machine design, elements of stress analysis, rivets, belt and chain drives, springs and synthesis of mechanical systems, materials and their use in design. Prerequisites: EGTG2201 Applied Calculus I, EGTG2228 Strength of Materials, EGTG3431 Dynamics and PHYS2102 General Physics II.

Fall

*Fee*

EGTM3250  
3 Credits

Lecture 2 hours; Laboratory 2 hours  
**Mechanical Technology Design II**

Design of gears, clutches, shaft and couplings, bearings, brakes, lubrication and synthesis of mechanical systems. Prerequisites: EGTG2202 Applied Calculus II and EGTM3248 Mechanical Technology Design I.

Spring

*Fee*

EGTM4040  
3 Credits

Lecture 2 hours; Laboratory 2 hours  
**Heating, Ventilation and Air Conditioning**

An introduction to some of the essential knowledge required to enter the field of HVAC&R engineering. Topics include: physical principles, heating loads, hydronic piping systems and terminal units, cooling-load calculations, psychometrics, fluid flow in piping and ducts and

air-distribution devices, air conditioning systems and equipment, refrigeration systems and equipment. Prerequisite: EGTG3351 Applied Thermodynamics.

EGTM4041

3 Credits  
**Heating, Ventilation and Air Conditioning and Refrigeration Controls**

Elements of control systems: sensors, operators, controls and control strategies (for HVAC&R) will be covered. A brief review of the processing of moist air (psychrometrics) will be offered. Finally, control systems for process control and the use of analog and direct digital controls will be applied to heating, ventilation, air conditioning and refrigeration. Prerequisite: EGTM4040 Heating, Ventilation and Air Conditioning or approval of adviser.

EGTM4356

3 Credits  
**Stress and Vibration Analyses**

The differential equations of stress and strain, shear flow, virtual flow, energy principles, curved beams, noncircular bars. Computer-oriented problem solving. Analysis of motion arising from lateral and torsional vibration of systems, free and forced vibrations, damping, isolation, balancing. Prerequisites: EGTG2202 Applied Calculus II, EGTG2228 Strength of Materials and EGTG3431 Dynamics.

Spring

EGTM4386

1 Credit  
**Lecture 1 hour; Laboratory 1 hour  
Mechanical Technology Design Project**

Students will be assigned a project with the approval of the school director and conducted under the supervision of a faculty member. Oral presentation. Prerequisite: EGTG2210 Technical Communications. Corequisite: EGTM3250 Mechanical Technology Design II.

*Fee*

## English for Professional Success (E.P.S.)

*Programs in Language, Culture and Professional Advancement*

EPS0097

3 Credits  
**Foundations of Academic English**

Students will be able to recognize a speaker's attitude or position on a topic from tone of voice and vocabulary used. They will be able to paraphrase ideas encountered in a lecture situation or a reading passage and be able to cite the

source of those ideas. Having taken a position on a topic, they will be able to speak and write persuasively on the topic. Students will be able to conduct interviews for research purposes, perform assigned web quests constructed by the instructor and post messages on a dedicated electronic bulletin board on a regular basis as assigned. They will demonstrate an understanding of American attitudes toward degree and quantity by using correct expressions of comparison, number and extent.

EPS0098

3 Credits  
**Practical Academic English**

Students will be able to comprehend long lectures, conversations, narratives and debates; to summarize the main ideas orally and in writing; to take a stand on the topic and express that position orally and in writing; to solicit opinions on a topic; to report and compare those opinions orally and in writing; to express complex cause-and-effect relationships using conventional essay formats; and to make inferences from lecture materials and readings. Students will be able to read classmates' work for the purpose of editing. They will use the web to conduct research for oral reports and written assignments. Students will demonstrate an understanding of American attitudes toward private property, both material and intellectual, by using proper possessive forms and by employing acceptable annotation conventions for citing sources of information in written work.

EPS0099, EPS0199

4.5 + 1.5 Credits  
**Academic Writing Skills**

Students will be able to understand more subtle attitudes of a speaker or writer such as irony, sarcasm and humor. They will be able to debate a point, give and solicit advice and present an extended oral report based on lectures and/or research. They will recognize the difference between fact and opinion and will be able to identify different types of essays. Students will be able to write argumentatively and to read their own work objectively for editing and to attach and send written assignments to a class/partner for editing. Students will demonstrate an understanding of the American attitude toward specificity by correctly using both physical and lexical reference indicators orally and in writing.

EPS1008, EPS1018

4.5+1.5 Credits  
**Lecture 6 hours; Laboratory 3 hours  
Academic Writing Skills;**

**Academic Communication Skills**  
Non-native English-speaking students will be exposed to more subtle attitudes of a speaker or writer in different genres. They will recognize the difference between fact and opinion. Students will be able to write argumentatively and to read their own work objectively for edit-

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ing. They will demonstrate an understanding of the American attitude toward specificity. In addition, students will maintain a portfolio of work and participate in self reflection. EPS1018 is a corequisite lab for EPS1008 where students engage in critical reading and thinking, as well as speaking activities. Class activities may include academic debates and persuasive presentations.

## EPS1109, EPS1119

**3+1 Credits**

### Lecture 3 hours; Laboratory 1.5 hours English for Occupational Purposes; English for Academic Purposes

Non-native English-speaking students will focus on English proficiency for occupational purposes. Students will develop their skills in professional writing, oral communication, research and information literacy, group collaboration and cross-cultural competencies. EPS1119 is a corequisite lab for EPS1109 where students will focus on English proficiency for academic purposes. Students will develop their skills in academic research and writing and proficiency with APA and/or MLA format.

## EPS1201

**3 Credits**

### English for Professional Success: Global Exchange — New York City as a Classroom

Perceived through the prisms of cultural ethnography and the significance of everyday experiences, this course will utilize New York City as a resource and a classroom to study cross-cultural understandings and misunderstandings. Students will study the multicultural aspects of the city in the context of modern life and situate their findings within a historical context. In addition to studying cross-cultural issues in context, students will be improving their academic-language skills while exploring topics of interest through a variety of activities and assignments. The course satisfies the language and culture requirements for international and domestic students.

*Experiential learning fees apply*

# English Language and Literature

## School of the Humanities

## ENGL1103

**3 Credits**

### English Masters

Representative selections of British literature from Chaucer to the present.

## ENGL1104

**3 Credits**

### American Masters

Representative selections of American literature from the 19th and 20th centuries.

## ENGL2000

**3 Credits**

### Literary Analysis

This course introduces students to the vocabulary, techniques and critical theories involved in reading and writing about literature. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2004

**3 Credits**

### Introduction to Fiction

This course, intended for non-majors and majors, is designed to develop the students' appreciation and understanding of fiction. Reading and interpretation of novels will be the central focus of this introductory-level course. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2005

**3 Credits**

### Introduction to the Short Story

The short story can be claimed as an American art form, created by writers who began to develop the genre at the beginning of the 19th century. The course will present representative short stories and draw upon literary theory and biography to supplement the literary analysis. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2108

**3 Credits**

### Global Literature

The course examines works of fiction, drama and nonfiction as well as film and visual art to consider creative voices from Africa, Asia, Europe, Latin America and the United States. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2140

**3 Credits**

### African-American Literature

The course will offer a survey of literature from spirituals and folktales through contemporary writers like Alice Walker and Toni Morrison. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2201

**3 Credits**

### Masterpieces of World Literature I

Representative works of world literature focusing on the ancient classics.  
*Fall, Spring*

## ENGL2202

**3 Credits**

### Masterpieces of World Literature II

Representative works of world literature from the Middle Ages to the 20th century.  
*Fall, Spring*

## ENGL2203

**3 Credits**

### British Literature I

A survey of the literature of Britain from *Beowulf* to the 18th century. Prerequisite: ENWR1002 Composition II: Research and Argument.  
*Fall*

## ENGL2204

**3 Credits**

### British Literature II

A survey of the literature of Britain from the 18th century to the modern period. Prerequisite: ENWR1002 Composition II: Research and Argument.  
*Spring*

## ENGL2205, ENGL2206

**6 Credits (3 Credits Each Semester)**

### Introduction to Critical Writing I, II

The foundation for all further advanced courses in English: an exercise in critical writing through the study of works unified by a common theme, topic or genre. Students may take either one or two semesters of this course. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2207

**3 Credits**

### Oral and Written Reports

Oral and written reporting techniques appropriate to business. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL2357

**3 Credits**

### Introduction to Irish Literature

This course will be an opportunity for students to become acquainted with the nature of Irish literature, beginning with selected pieces of mythology and folk tales. Various genres will be covered including such authors as William Carleton, James Joyce, Liam O'Flaherty, W.B. Yeats, Frank O'Connor, Mary Lavin, Brian Friel and Edna O'Brien. Various aspects of Irish culture and traditions and their impact upon the literature will be explored. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3007

**3 Credits**

### Major British Writers I

Each semester is devoted to representative works by one or two outstanding figures whose achievement is examined, not only for its intrinsic quali-

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ties but also for its profound reflection of the dynamics of an age. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3008

3 Credits

### Major British Writers II

Each semester is devoted to representative works by one or two outstanding figures whose achievement is examined, not only for its intrinsic qualities, but also for its profound reflection of the dynamics of an age. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3024

3 Credits

### Studies in Poetry

Intensive readings of poems from various periods and poets, with emphasis on the mastery of poetry as a form. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3044

3 Credits

### The Environment in Literature and Culture

In the 21st century, the national environment has become a source of global concern. The impact of human activity on water, air and land is reflected in and represented by the stories created about the environment. The class will read literary narratives of the environment emerging through United Nations policy papers, news reports, documentaries, photographs and artwork. Such comparative and intertextual readings will help students understand not only how they construct their relations to the environment but will also enable them to conceive of reconstructing future alternatives. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3047

3 Credits

### American Nature Writers

A study of the literature concerned with the changing relationship of Americans to nature. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3049

3 Credits

### Major American Writers I

A study of selected major figures, themes and genres. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3050

3 Credits

### Major American Writers II

A study of selected major figures, themes and genres. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3053

3 Credits

### Shakespeare and Film

While Shakespeare's plays have been put on film since the invention of movies, recent years have witnessed a great increase in the production of Shakespeare movies as demonstrated by popular mainstream productions of "Othello," "Hamlet," "A Midsummer Night's Dream," "Twelfth Night" and "Romeo and Juliet." Made in a variety of production styles, these films have attracted a good deal of academic attention through college courses, articles, books and entire journals devoted to the subject. This course will cover a number of plays from text to realization on film and ask students to consider issues of cinematic and literary style. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3056

3 Credits

### Modernism

Introduction to the literary theory, form and style of modernism, a literary movement which dominated the first half of the 20th century and continues to exert its influence over literature today, which, tellingly, is described by the label post-modernism. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3060

3 Credits

### Post-modern Literature

The Post-modern Age started a decade or two after World War II and continues to shape culture. Through consideration of a range of fiction, films, drama, poetry and essays from around the world, students will confront the challenges posed by post-modernism with its multiple voices, deeply ironic sense of humor, self-conscious storytelling and a richly allusive range of references to past literature and culture. Examination of the relationship of popular culture with high culture will place these works in context. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3076

3 Credits

### Special Stories — Super Cinema

This course will examine the relationship between several well-known novels and their popular movies. Genre, style and plot will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3131

3 Credits

### 20th-century American Worker in Literature

Students will explore American novels focusing primarily on the world of work in America during the first half of the 20th century. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3200

3 Credits

### English Grammar

A study of the basics of grammar with emphasis on its relevance to clear and correct writing. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3307

3 Credits

### 20th-century Literature

The major American, British and continental writers of the 20th century viewed within the context of the literary, social, political and scientific forces that shaped them. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3315

3 Credits

### American Jewish Novel

American Jewish literature from its beginnings through World War II to the present with some attention to Israeli fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3321

3 Credits

### Psychological Fiction

Depth psychology (psychoanalysis) as a means to determine the motivations of characters in works by such authors as Melville, Kafka, Mann and Hesse. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3322

3 Credits

### Psychological Novel II

Depth psychology (psychoanalysis) as a means of determining the motivation of character in works by such authors as Hawthorne, Conrad, Camus and others. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3323

3 Credits

### Advanced Composition

English composition for students who wish to improve their writing skills by continued practice in the four types of writing — descriptive, narrative, expository and argumentative. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3324

3 Credits

### Women in Literature

A course that explores poetry and fiction by and about women. Of particular focus will be issues of class, sexuality, race and gender relations as they impact the issues and concerns that shape women's literature. Prerequisite: ENWR1002 Composition II: Research and Argument.

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**ENGL3325**

**3 Credits**

**Creative Writing I (Fiction)**

Workshop providing sustained practice in individual projects in fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3326**

**3 Credits**

**Creative Writing II (Fiction)**

A continuation of creative writing workshop providing sustained practice in individual projects in fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3327**

**3 Credits**

**Creative Writing I (Poetry)**

Workshop providing sustained practice in individual projects in poetry. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3328**

**3 Credits**

**Creative Writing II (Poetry)**

A continuation of creative writing workshop providing sustained practice in individual projects in poetry. Prerequisite: ENGL3327 Creative Writing I (Poetry).

**ENGL3329**

**3 Credits**

**Advanced English Grammar**

Advanced grammar providing a transition between the prescriptive approach and modern descriptive grammar. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3333**

**3 Credits**

**Creative Writing I (Nonfiction)**

Workshop in writing that deals in a variety of modes (e.g., narration, description and exposition) with real people, events, relationships and experiences. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3334**

**3 Credits**

**Creative Writing II (Nonfiction)**

Advanced writing workshop that deals in a variety of modes (e.g., narration, description and exposition) with real people, events, relationships and experiences. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3335**

**3 Credits**

**Creative Writing I (Scriptwriting)**

Workshop dedicated to the craft of scriptwriting, practicing the elements of drama (plot, character, dialogue) through writing exercises for the stage and screen. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3336**

**3 Credits**

**Creative Writing II (Scriptwriting)**

Workshop dedicated to the craft of scriptwriting, focusing on the elements of drama (plot, character, dialogue) and culminating in a one-act script. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3337**

**3 Credits**

**Creative Writing I (Cross-genre)**

A themed workshop in creative writing and craft-focused reading, dedicated to providing students with an opportunity to work with at least two of the four major forms: prose/fiction, poetry, scriptwriting and nonfiction. Themes will be decided by the individual professors and announced in the School of the Humanities course listings. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3338**

**3 Credits**

**Creative Writing II (Cross-genre)**

A workshop in creative writing and craft-focused reading, dedicated to providing students with an opportunity to experiment with all four major forms: prose/fiction, poetry, scriptwriting and nonfiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3351**

**3 Credits**

**Medieval Literature**

Medieval European literature in translation, featuring medieval epic and romance (especially Arthurian), and writers such as Dante and Boccaccio. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3353**

**3 Credits**

**Chaucer**

Selections from *The Canterbury Tales* and/or Chaucer's other major works. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3355**

**3 Credits**

**Renaissance Literature**

Tudor prose and poetry from More, Skelton and Wyatt to the age of Sidney, Spenser and Shakespeare. Humanism in England and its Continental sources. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3357**

**3 Credits**

**Shakespeare I**

Critical analysis of representative early plays. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3358**

**3 Credits**

**Shakespeare II**

Critical analysis of representative later plays. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3359**

**3 Credits**

**17th-century Literature**

The major poetry and prose studied in relation to the significant political, religious and literary issues of the period. Authors such as Donne, Jonson, Herbert, Marvell, Milton, Dryden, Bacon, Browne, Burton, Bunyan and Hobbes will be included. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3361**

**3 Credits**

**Milton**

A study of Milton's artistic development in relation to the various poetic styles and literary influences of the late Renaissance. Concentration on *Paradise Lost* and *Samson Agonistes* with some attention given to the major prose and the lyric poetry. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3363**

**3 Credits**

**18th-century Literature**

A study of 18th-century literature with emphasis on the satires of Swift and others. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3364**

**3 Credits**

**18th-century Literature II**

The age of Johnson.

**ENGL3365**

**3 Credits**

**The Romantic Era I**

The English Romantics, with special attention to Blake, Wordsworth and Coleridge. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3366**

**3 Credits**

**The Romantic Era II**

The English Romantics, with special attention to Shelley, Keats and Byron. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3367**

**3 Credits**

**The Victorian Era I**

Mid-19th-century literature: poetry, prose and fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

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**ENGL3368**

**3 Credits**

**The Victorian Era II**

Late 19th-century literature: poetry, prose and fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3369**

**3 Credits**

**American Literature I**

A chronological study of American literary history beginning with the colonial figures and concentrating on Puritanism, Unitarianism, Romanticism and transcendentalism. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3370**

**3 Credits**

**American Literature II**

A chronological study of American literary history, with an emphasis on such modern developments as realism, naturalism, Freudianism and existentialism. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3371**

**3 Credits**

**Modern Novel I**

The American, English and Continental novel to World War II. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3372**

**3 Credits**

**Modern Novel II**

The American, English and Continental novel since World War II. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3373**

**3 Credits**

**Modern Poetry I**

Selected works of significant American and British poets, including W.B. Yeats and T.S. Eliot. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3374**

**3 Credits**

**Modern Poetry II**

Selected works of significant American and British poets, including Wallace Stevens and Ted Hughes. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3375**

**3 Credits**

**Modern Drama I**

Continental, English and American drama from Ibsen through Shaw. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3376**

**3 Credits**

**Modern Drama II**

Continental and British drama from Pirandello and Lorca to the present. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3377**

**3 Credits**

**The Bible and Its Influence**

The Bible as a collection of many types of literature, read from a literary point of view. Novels, dramas and poems influenced by the Bible. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3042 The Bible and Its Influence.)

**ENGL3380**

**3 Credits**

**Literature of War**

A variety of literary forms and genres addressing warfare, its impact and aftermath. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3381**

**3 Credits**

**Popular Fiction**

Course in diverse genres that reflect popular culture and taste, both in the United States and throughout the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3382**

**3 Credits**

**Special Topics in Black Literature**

Writings by authors of African descent from various historical periods and regions, in English or English translation. Particular offerings may be unified around social or cultural themes, historical periods or aesthetic approaches. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3383**

**3 Credits**

**Ethnic Literature in the United States**

A study of works that reflect the ethnic, cultural and religious diversity of America. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3384**

**3 Credits**

**Postcolonial Literature**

Selected works from the literatures of former European colonies: African, Indian, Caribbean, Australian, Canadian, Latin American, etc. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3385**

**3 Credits**

**Literary Theory**

Study in and application of selected theories of literature from Plato to poststructuralism and

cultural studies. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3386**

**3 Credits**

**Special Topics in British or American Literature**

Course in selected works from British and American literary tradition. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3387**

**3 Credits**

**Special Topics in World Literature**

Course in selected works from literary traditions outside Britain, the United States and Europe. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3388**

**3 Credits**

**Regionalism in American Literature**

A study of American writers who thematically reflect the American terrain in their works. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3389**

**3 Credits**

**The Global Novel**

A study of some of the pertinent writers on the international scene. Works reflecting the cultures of several countries will be included. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3390, ENGL3391**

**6 Credits (3 Credits Each Semester)**

**Contemporary Fiction I, II**

A study of major developments in the forms and themes of fiction since the 1960s with emphasis on the last 20 years. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3392**

**3 Credits**

**International Literature**

A study of international writers of the past century whose works reflect both their specific cultures and universal concerns. Prerequisite: ENWR1002 Composition II: Research and Argument.

**ENGL3394**

**3 Credits**

**Travel Literature**

Travel writing as a unique literary expression; the travel writer as observer and cultural influence. Prerequisite: ENWR1002 Composition II: Research and Argument.

# English Language and Literature

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## ENGL3396

3 Credits

### **South-African Literature, Sex, Politics**

This course will explore the depictions of select countries or regions of the African continent in a variety of different types of text written by Africans and by newcomers or outsiders to Africa. The aim will be to gain a sense of the diversity and multiplicity of “Africans” as created by writers from different points of views, with different relationships to Africa at different times. Students will read from among diaries, memoirs, travel narratives, works of journalism, movies, popular magazines and may also sample music and films. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3399

3 Credits

### **Continental Drift: Sex, Gender and Family in the South Asian Diaspora**

A political and cultural study of literary and autobiographical works created by two generations of South Asians (including Salman Rushdie and Jhumpa Lahiri) who have chosen to make their lives and careers beyond the sub-continent. The course centers on urban, cosmopolitan and transnational stories, novels and films in English and touches upon topics such as gender roles, courtship, marriage, reproduction and child-rearing. *FDU NetID (formerly Webmail) account required.* Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3399 Continental Drift: Sex, Gender and Family in the South Asian Diaspora.)

## ENGL3409

3 Credits

### **Glorious and Shame: America on Film**

Film adaptations — many Academy Award winners — such as “The Heiress” (class and greed in the 1910s), “Paths of Glory” (World War I), “Inherit the Wind” (evolution vs. creationism in the 1920s), “The Grapes of Wrath” (the Depression), “Elmer Gantry” (political corruption), “From Here to Eternity” (pre-World War II), “Watch on the Rhine” (World War II), “To Kill a Mockingbird” (racial justice, 1950s), “The Crucible” (McCarthyism, 1950s), “A Raisin in the Sun” and “Malcolm X” (black history), “Hair” (1960s rebellion) and “Kramer vs. Kramer” (family and gender identity, 1970s). Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3410

3 Credits

### **Modern Novels on the Screen**

A close critical study of the novels goes hand in hand with an analysis of screen adaptations, including an examination of the various possibilities and limitations of the two media. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3430

3 Credits

### **Contemporary African Literature**

A sampling of writers from Africa, concentrating on the postcolonial experience. Students will read writers from a variety of cultures, in English or English translation, and in a variety of genres (fiction, drama, poetry, folktales and memoirs). Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3451

3 Credits

### **The Art of the Short Story**

What distinguishes a short story from a novel? Starting with Chekhov, Joyce and Mansfield, the course moves to consider contemporary writers focusing on the very different ways writers have used this form. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL3500

3 Credits

### **Junior/Senior Integrative Seminar**

A multidisciplinary course focusing primarily on literary texts written in English but also integrating works from at least two other disciplines. Prerequisites: ENWR1002 Composition II: Research and Argument and junior or senior standing.

## ENGL3600

3 Credits

### **Literary Basics**

This course offers a solid foundation in literary genre, technique and terminology. Highly recommended but not limited to students pursuing a teaching career. The course will provide critical background for passing the PRAXIS exam. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4400

3 Credits

### **Postcolonial Shakespeare**

This course discusses four of Shakespeare's plays: *The Merchant of Venice*, *Othello*, *Antony and Cleopatra* and *The Tempest*. The approach to these plays is through the use of postcolonial perspectives, foregrounding the concerns of a Renaissance world faced with changes brought about by exploration, travel and colonization, slavery and freedom and a new sense of “us” and “them” among them. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4403

3 Credits

### **Writing Seminar I**

Special writing projects to be determined by the instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4404

3 Credits

### **Writing Seminar II**

A continuation of ENGL4403 Writing Seminar I. Prerequisites: ENGL4403 Writing Seminar I and ENWR1002 Composition II: Research and Argument.

## ENGL4406

3 Credits

### **Interdisciplinary Study in Humanities**

Literature integrating fine arts, history and philosophy. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4420

3 Credits

### **Contemporary Psychological Novel**

A psychosocial study of some of the leading figures in American, Canadian and European fiction who have emerged since World War II, with special emphasis on the last 20 years. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4433

1–3 Credits

### **Selected Studies in English and American Literature**

Studies in an area of English and American literature. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4436

3 Credits

### **Nobel Prize: Authors**

Short selections from the world's most honored authors: Yeats, Eliot, Sachs, Neruda, Tagore, Mistral, Solzhenitzen, Camus, Beckett, Soyinka, Milosz and Mahfouz. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4445

3 Credits

### **Caribbean Literature**

Focuses on the work of representative writers from the English-speaking Caribbean. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4447

3 Credits

### **“The Tempest:” Music Rich and Strange**

Shakespeare's last play (1611) is full of strange music, wild seas, magic, slavery, native inhabitants, romantic young lovers and a wide variety of ambitious nobles. After discussing the play, the class will study its film and animated versions, keeping in mind themes that flow from the era of early Elizabethan exploration and colonization. Prerequisite: ENWR1002 Composition II: Research and Argument.

# English Writing • Environmental Science

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## ENGL4470

3 Credits

### Literature of Evil

Examination of the treatment of evil in works by major writers. Authors will include Dante, Shakespeare, Hawthorne, Emily Bronte, Dostoevsky, Melville, Graham Greene, Flannery O'Connor and Cormac McCarthy. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4498

3 Credits

### Internship

Practical experience working in a business, government or nonprofit setting or in the publications field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4700

3 Credits

### The Eternal Search/Struggle for Identity

This course provides the student with the vast experience of a university values seminar. The chosen texts and films have been selected to direct the student's focus on the influences (both internal and external) involved in one's emerging identity. Prerequisite: ENWR1002 Composition II: Research and Argument.

## ENGL4800

1-3 Credits Each Semester

### Independent Study in English and Comparative Literature

Independent study under the direction of a specific faculty member after consultation with the school director. Students may take one or two semesters of this course. Prerequisites: ENGL2201, ENGL2202 Masterpieces of World Literature I, II or equivalent.

## ENGL4875, ENGL4476

Variable Credits

### Honors English

Independent study in English for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

## ENGW4011

1 Credit

### Academic Research and APA Citation

Designed for students in the social sciences, this short course features academic-research skills including how to search and evaluate online databases and websites and how to cite sources using APA format.

# English Writing

## School of the Humanities

All degree-seeking students take ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument to satisfy University College's six-credit writing requirement. Based on placement testing, students who would benefit from additional support are enrolled in ENWR1000 Introduction to Composition prior to ENWR1001 Composition I: Rhetoric and Inquiry.

## ENWR0098

3 Credits

### Fundamentals of Academic Writing I

A developmental course focusing on skills in written-language expression necessary for academic success. Emphasis on structure of standard English, basic writing processes, reading comprehension and essay writing. This is not a credit-bearing course and is offered as pass/no credit.

## ENWR1000

3 Credits\*

### Introduction to Composition

This introductory course concentrates on the fundamental writing skills necessary for academic success. Students practice writing well-organized, sensible and grammatically sound expository prose. Particular emphasis is placed on cultivating effective processes for more thoughtful and developed writing, revising to achieve unity and coherence, and self-directed editing and proofreading for clarity and appropriateness. Students also participate in peer review and become more critical readers. Note: Students who receive a grade of C- or lower must repeat the course.

## ENWR1001

3 Credits

### Composition I: Rhetoric and Inquiry

This course provides students with intensive study and practice in process-oriented writing, critical reading and rhetorical inquiry. Students engage expository texts in order to describe and evaluate the choices writers make and then apply that knowledge to their own compositions. Throughout the course, students give and receive feedback, revise their work and reflect on their growth as writers. Note: Students who receive a grade of C- or lower must repeat the course.

## ENWR1002

3 Credits

### Composition II: Research and Argument

This course focuses on the study and practice of writing as research-based argument. As a means of arriving at and writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. Prerequisite: ENWR1000 Introduction to Composition or ENWR1001 Composition I: Rhetoric and Inquiry.

# Environmental Science

## School of Natural Sciences

### Courses for Nonmajors

## ENVR1001, ENVR1002

3 Credits

### Lecture 2 hours; Laboratory 2 hours Introduction to Environmental Science

An introduction to aspects of biology, chemistry, geology and physics that impact the environment. The overall themes are water and its involvement in each of the sciences and natural hazards: earthquakes, volcanos, floods and hurricanes. A laboratory science elective for non-science majors.

Fee

## ENVR1101, ENVR1102

3 Credits

### Lecture 2 hours; Laboratory 2 hours Physical Geology

The structure and composition of the earth and the natural processes on and within it.

Fall, Spring

Fee

## ENVR1105

3 Credits

### Weather and Climate

A study of the dynamic atmosphere, weather and climate and how they affect the natural environment, as well as human affairs. Connections are made toward management of weather hazards, air pollution, impacts on the economy and environmental and social implications of climate change. Lectures are supplemented by current events and discussions and hands-on exercises.

\*Counts as free elective credit; does not satisfy writing requirement.



# French Language and Literature • Health Studies

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## ENVR1111, ENVR1112

4 Credits

Lecture 2 hours; Laboratory 4 hours

### Oceanography

An introduction to physical, chemical and biological oceanography, and the geology of the sea floor, ocean sediments and beaches. Field trips.  
*Spring* *Fee*

## ENVR1123

3 Credits

### Natural Hazards

The causes, locations, economics and sociology of natural hazards such as earthquakes, volcanic eruptions, landslides and severe weather. Intended to introduce the students to the science of these events and the effects that humans may have on their occurrence or impact, as well as methods for the avoidance or mitigation of their effects.

## ENVR1205

3 Credits

Lecture 2 hours

### The Great Pacific Northwest: Environmental Issues and Cultural Perspectives

Humans effect and are affected by natural environments. The class will study the ways in which the Pacific Coast's native and imported European cultures evolved to make use of a variety of environments, how Pacific coastal marine and forest environment are stressed by pollution and how various technologies stress or protect the natural resources upon which life depends. Corequisite: ENVR1215 The Great Pacific Northwest: Environmental Issues and Cultural Perspectives Laboratory.

## ENVR1215

0 Credits

Laboratory 2 hours

### The Great Pacific Northwest: Environmental Issues and Cultural Perspectives Laboratory

Experiments illustrating the topics discussed in ENVR1205 The Great Pacific Northwest: Environmental Issues and Cultural Perspectives. Corequisite: ENVR1205 The Great Pacific Northwest: Environmental Issues and Cultural Perspectives.

## ENVR1800, ENVR2800, ENVR3800, ENVR4800

### Independent Study

4–24 Credits (1–6 Credits Each Semester)

Independent study in environmental sciences (undergraduate).

## ENVR4821

1–3 Credits

### Environmental Research

Senior-level environmental research at the Meadowlands Environmental Research Institute (MERI). An original research report is required. Open only to senior students.

# French Language and Literature

## School of the Humanities

### FREN1101, FREN1102

6 Credits (3 Credits Each Semester)

#### Elementary French I and II

Conversational introduction to the language with comprehensive grammatical and phonetic explanations and the reading of simple French texts.

*Fee*

### FREN2103, FREN2104

6 Credits (3 Credits Each Semester)

#### Intermediate French I and II

More advanced conversational course, taking up again and completing the earlier one, and leading to a working knowledge of the language. Reading of more complex French literary texts. Prerequisite: FREN1102 Elementary French II or equivalent.

*Fee*

### FREN4430

1–3 Credits Each Semester

#### Selected Studies in French Language and Literature

Studies in an area of French language and/or literature.

# Health Studies

## Henry P. Becton School of Nursing and Allied Health

### MEDT4501

3 Credits

#### American Health Care Systems

This class will examine and critically analyze the United States health care system, emphasizing the major trends and issues that have led the country to where it is today. In addition to providing a historical perspective, this course will establish a context for analyzing the current, varied approaches to health care financing, delivery and reform. While this course will focus on the U.S. health care system, the systems of other nations will be reviewed for comparison.

### MEDT4502

3 Credits

#### Health Care Law and Policy

This class will analyze the complexity of the American health care system and the law and policy issues that must be confronted to achieve meaningful health care reform. Students will gain an appreciation of the dilemmas facing health care law and policymakers, providers, patients and how to balance cost, quality and

access. It examines specific health care organization aspects such as the medical profession, hospitals, managed-care organizations and government health care programs. This course will also discuss law and policy changes that have major impacts on American health care in the past decade.

### MEDT4303

3 Credits

#### Global Health

This course will cover the main principles of global health and introduce the students to the world's vast diversity of determinants of health and disease. Current and emerging health priorities such as infectious diseases, socioeconomic status and health, human rights, culture and health, maternal and child health, water and sanitation, parasitic diseases, health inequities and major global initiatives for disease prevention and health promotion.

### MEDT4307

3 Credits

#### Health Studies Practicum

The health studies practicum is the capstone course for the health studies major. The course will include an internship in the field. Current topics, scientific literature and advances in the student's area of interest will be covered in this course.

### NURS2210

3 Credits

#### Pathophysiology

This course focuses on alterations in biologic processes that affect the body's homeostasis, including etiology, pathogenesis, clinical manifestations and treatment of selected health problems. Knowledge of basic and clinical sciences is applied to simulated, clinical, nursing-practice situations. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment and NURS2201 Health Assessment Laboratory.

### NURS2217

3 Credits

#### Information Systems and Applications in Health Care

This course serves as an introduction to nursing and health care informatics. Course content includes an overview of computer basics, informatics, terminology, data integrity and management, informatics theory, system life cycle and clinical applications. The purpose of this course is to provide a basic understanding of nursing and health care informatics and to facilitate decision-making based upon data, information, knowledge and wisdom.

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**NURS3208**

**3 Credits**

**Introduction to Health Care Economics**

This course introduces the student to basic economic concepts and theories to analyze selected issues/problems in health care and to inform decision making and policy development. Fiscal management and basic budgeting concepts also will be covered.

**NURS3351**

**3 Credits**

**Epidemiology in Health Care**

This course focuses on the study of the distribution and determinants of health and disease in human populations. Emphasis is on the natural history of disease, levels of prevention and intervention strategies. Indices of health and illness are discussed in relation to phases of the life cycle. Social policy issues are considered in relation to epidemiologic and demographic trends worldwide.

**NURS3353**

**3 Credits**

**Introduction to Normal and Therapeutic Nutrition**

This course will introduce nutrition students to the fundamentals of human nutrition as well as the role of dietary intervention in the treatment and management of chronic and acute medical conditions.

**NURS4420**

**3 Credits**

**Health Care Management**

An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisite: faculty permission.

**NURS4430**

**3 Credits**

**Nursing Research**

Students are introduced to the research process. The course focuses on the professional health care worker as a research consumer. Critical appraisal skills are developed as a basis for evaluating research findings for application to clinical practice. Learning activities are designed to facilitate the students' understanding of allied health research, the research-utilization process and professional-role development. Prerequisite: faculty permission.

# History

## *School of the Humanities*

**HIST1114**

**3 Credits**

**U.S. History to 1865**

Significant themes (e.g., Puritanism, slavery, nationalism, sectionalism) in the development of the American nation from discovery through the Civil War.

**HIST1115**

**3 Credits**

**U.S. History Since 1865**

Significant themes (e.g., industrialization, pragmatism, government centralization) in the development of the United States from Reconstruction to the present.

**HIST1214**

**3 Credits**

**World History to 1500**

Development of civilizations from prehistoric times through the oriental, classical and medieval ages. Ancient culture, government and religion. Medieval elements.

**HIST1215**

**3 Credits**

**World History Since 1500**

Development of civilization from the Age of Revival and the Renaissance through the Enlightenment, to the rise of nationalism and political democracy. Problems of 20th-century civilization.

**HIST2102**

**3 Credits**

**Sports in America**

The social history of American sports.

**HIST2103**

**3 Credits**

**New Jersey History**

A survey of the Garden State's history.

**HIST2104**

**3 Credits**

**United States Social and Cultural History**

Social and cultural currents from the colonial period to the present.

**HIST2105**

**3 Credits**

**Crime in History**

Crime and punishment in U.S. history.

**HIST2106**

**3 Credits**

**Ethical Issues in History**

Critical issues that have challenged and shaped the American mind.

**HIST2107**

**3 Credits**

**U.S. Economic History**

Analysis of the periods of growth of the U.S. economy. Industrial Revolution, impact of World depression and the post-industrial development.

**HIST2108**

**3 Credits**

**The American Presidency**

Presidents and the presidency in U.S. history.

**HIST2189**

**3 Credits**

**Selected Studies in U.S. History**

Studies in an area not covered by an existing course.

**HIST2198**

**1–3 Credits**

**Independent Study in U.S. History**

Independent study under a faculty member's supervision; requires approval of the school director and the college dean.

**HIST2215**

**3 Credits**

**Constitutional History**

The evolution of the United States constitution and modern challenges.

**HIST2245**

**3 Credits**

**Islamic History**

This course will examine the history of Islamic societies from Muhammad to the present. Major topics include the Arab conquests, Abbasid Golden Age, early modern empires, modern reform movements and the impact of globalization on the Muslim world today.

**HIST2289**

**3 Credits**

**Selected Studies in World History**

Studies in an area not covered by an existing course.

**HIST2298**

**1–3 Credits**

**Independent Study in World History**

Independent study under a faculty member's supervision; requires approval of the school director and the college dean.

**HIST2518**

**3 Credits**

**China Since 1949**

A history of China from the establishment of the People's Republic in 1949 to the present. Includes the Communist experiment of Mao, reforms under Deng Xiaoping and China's rise as a world power.

# History

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**HIST2519**

3 Credits

**Imperialism in East Asia**

A history of imperialism in East Asia since 1644, depicting China and Japan as both victims and victimizers of imperialism. Includes Western imperialism in East Asia and U.S. involvement in Korea and Vietnam.

**HIST3101**

3 Credits

**American Immigration**

Immigration and its impact on American development.

**HIST3102**

3 Credits

**Race in America**

Race and race relations in American history.

**HIST3103**

3 Credits

**Gender in U.S. History**

The changing dynamics of gender in U.S. history. The impact of gender on American identity, public policy, foreign affairs and labor.

**HIST3104**

3 Credits

**U.S. Diplomatic History**

American diplomacy since 1890.

**HIST3105**

3 Credits

**U.S. Environmental History**

Nature, environment and environmentalism in American history.

**HIST3106**

3 Credits

**Culture and Technology in American History**

Technology and its effect on American culture.

**HIST3107**

3 Credits

**U.S. Constitutional History**

Constitutional issues and major Supreme Court rulings.

**HIST3120**

3 Credits

**Colonial and Revolutionary America**

The British colonies in America and the American Revolution.

**HIST3121**

3 Credits

**The Age of Jefferson and Jackson**

Development of national institutions, 1787 through the 1830s.

**HIST3123**

3 Credits

**The U.S. Civil War and Reconstruction**

Sectionalism, war and post-war reconstruction.

**HIST3129**

3 Credits

**U.S. History 1890–1945**

U.S. political, economic and social history, 1890–1945.

**HIST3130**

3 Credits

**U.S. History Since 1945**

U.S. political, economic and social history since 1945.

**HIST3133**

3 Credits

**The Cold War**

The post-World War II struggle between the United States and the Soviet Union until the latter's dissolution in 1991.

**HIST3134**

3 Credits

**America in the 1950s**

The political, economic and cultural history of the 1950s.

**HIST3137**

3 Credits

**Vietnam Conflict**

United States military involvement in Southeast Asia, 1954–1975.

**HIST3189**

3 Credits

**Selected Studies in U.S. History**

Topic varies with instructor.

**HIST3198**

1–3 Credits

**Independent Study in U.S. History**

Independent study under a faculty member's supervision; requires approval of the school director and the college dean.

**HIST3201**

3 Credits

**Britain, Ireland and the Empire-Commonwealth**

The development of Britain and the Empire-Commonwealth since 1688.

**HIST3202**

3 Credits

**Middle East**

The Middle East after World War I.

**HIST3203**

3 Credits

**19th-century Europe**

Political, social, economic and intellectual developments in Europe from the Congress of Berlin to World War I.

**HIST3204**

3 Credits

**Europe in the 20th Century**

European political, social and intellectual developments, 1914–1945.

**HIST3205**

3 Credits

**History of Russia**

Russian history in the 19th and 20th centuries, with emphasis on westernization, revolutionary movement, Marxism-Leninism and the rise and fall of the Soviet superpower.

**HIST3206**

3 Credits

**Modern Revolutions**

National revolutions since the 18th century.

**HIST3289**

3 Credits

**Selected Studies in World History**

Studies in an area not covered by an existing course.

**HIST3298**

3 Credits

**Independent Study in World History**

Independent study under a faculty member's supervision; requires approval of the school director and the college dean.

**HIST3342**

3 Credits

**Religion and Nation Building**

The historical background of Judaism, Christianity and Islam; their organization, structure, economic significance, political and social impact and influence on civilization.

**HIST3360**

3 Credits

**Modern African History**

A survey of the rise, fall and legacy of European imperialism in Africa, c. 1850–1960. Major topics include early European exploration and conquest, the development of colonial states, internal resistance and the rise of decolonization movements. Special attention will be paid to the impact of the Industrial Revolution, globalization and the Cold War on the African continent.

**HIST4400**

3 Credits

**Senior Research Seminar**

Offered in the spring semester as a requirement for graduating majors, the course is designed to reinforce research and writing skills.

**HIST4401**

3 Credits

**Honors History**

Independent study for students in the University Honors Program; requires approval of the school director and the college dean.

**HIST4476**

3 Credits

**Honors History**

Independent study in history for students in the University Honors Program under the direction of a specific faculty member with approval of the department chairperson.

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## HIST4498

3 Credits

### Internship

Practical experience working in a business, government or nonprofit setting or museum, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

## Honors

### University Honors Program

## HON3301

3 Credits

### Junior Honors Seminar

Introduction to the methods of research; literature searches using computer and web databases; proposal development; organization and presentation of research data; development of the honors thesis. HON3301 Junior Honors Seminar is a University-wide course. For other University Honors Program courses please contact the University Honors Program director on your campus.

## HON4401

3 Credits

### Senior Honors Thesis

Senior honors thesis for students in the University Honors Program under the direction of a specific faculty member with approval of the school director.

## HON4402

3 Credits

### Senior Honors Research

Senior honors research for students in the University Honors Program under the direction of a specific faculty member with approval of the school director.

## Humanities

### School of the Humanities

## HUMN2241

3 Credits

### Greek Civilization

This course will explore the history and culture of Greece during the 5th century BC. Topics will include Greek constitutional history (especially the development of Greek democracy), the Persian Wars, the rise of the Athenian empire and the Peloponnesian Wars. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2245

3 Credits

### Roman Civilization

This course will explore the history and culture of Rome from the outbreak of the Punic Wars to

the Battle of Actium (264–31 BC). Topics will include the Punic Wars, the Roman conquest of the Mediterranean, the decline of the Republic, the Roman Civil Wars, the dictatorship of Julius Caesar and the emergence of Octavian/Augustus. Readings will include selections from Roman historians (Livy), Roman political figures (Cicero and Caesar) and Roman poets (Catullus, Horace and Virgil). Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2253

3 Credits

### The Search for Meaning: Religious Responses

Examination of the religious thought of two Jewish and two Christian 20th-century figures. Through an analysis of the writings of Elie Wiesel, Abraham Heschel, Dorothy Day and Dietrich Bonhoeffer, the student will explore structures of religious experience in two monotheistic traditions. Special attention will be paid to the roles of religious ways of knowing in the formation of social and political philosophies. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2253 The Search for Meaning: Religious Responses.)

## HUMN2254

3 Credits

### War and Peace in Christianity, Judaism and Islam

Survey of key aspects of the thought and practice of the three monotheistic traditions with regard to issues surrounding war and peace. Both scriptural writings and the writings of contemporary religious thinkers will be analyzed. Selected interreligious conflicts in the contemporary period will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2254 War and Peace in Christianity, Judaism and Islam.)

## HUMN2255

3 Credits

### Person, Gender and Sexuality: Judaism, Christianity and Islam

This course, an interfaith endeavor taught by professors from the Jewish, Christian and Muslim traditions, will trace the historical development of the meaning and value of person, gender and sexuality in these traditions. Emphasis will be placed on understanding the cultural, historical and theological basis of these terms, the convergences of the meanings of these terms in the three traditions and the contemporary applicability of these concepts from a global perspective. (Equivalent to RELI2255 Person, Gender and Sexuality: Judaism, Christianity and Islam.)

## HUMN2439

3 Credits

### Radical Political Thought

This course explores major currents of political radicalism both within and outside of the dominant Western political tradition. Topics considered include antidemocratic radicalism, democratic radicalism, Marxian radicalism, radical feminism, radical individualism and post-colonial radicalism. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2439 Radical Political Thought.)

## HUMN2440

3 Credits

### Human Rights

This course will examine several major themes and problems in contemporary human rights, including the meaning of human rights, its origins, philosophical justifications and its enabling documents. It also will discuss current philosophical debates arising from cultural relativism, religious claims and the assertion of group rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2440 Human Rights.)

## HUMN2443

3 Credits

### African-American Political Thought

This course explores the contributions of African-American political thinkers to the development of American political thought, considers the tensions and conflicts within African-American political thought and explores the significance of these thinkers to the understanding of contemporary race relations. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2443 African-American Political Thought.)

## HUMN2444

3 Credits

### Technology and Its Critics

Modern technologies have aroused both intense admiration and violent opposition. This course will provide a philosophical analysis of some of the issues raised by critics of modern technology such as Aldous Huxley, Lewis Mumford and Neil Postman. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2444 Technology and Its Critics.)

## HUMN2445

3 Credits

### Democracy in America

This course explores the theory and practice of American democracy from the 19th century to the present day through a mixture of philosophical, historical, literary and social scientific readings and a variety of documentary and Hollywood films. Questions include: What are the theoretical foundations of American democracy? How does the practice of democracy in

# Humanities

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America deviate from these foundations? How has American democracy evolved? Why do so many Americans appear to hate politics? How should democratic citizens be educated? Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2445 Democracy in America.)

## HUMN2446

3 Credits

### Religion and Human Rights

This course will survey contemporary issues in the relationship between religion and human rights. Among the topics examined will be the values in various religious traditions, in particular Hinduism, Judaism, Christianity and Islam, which may underlie the protection of human rights. The course will also look at the persecution of religious minorities in today's world, the role of religion in suppressing human rights and how religion has served, in various instances, to champion human rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2446 Religion and Human Rights.)

## HUMN2447

3 Credits

### Ecology for Life: Building a Lifestyle for a Sustainable Planet

This course will provide the student with a basis for making lifestyle choices that are consistent with the goal of building a society that sustains the resources of the Earth for future generations. The principles of environmental society and practical applications are covered. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2448

3 Credits

### Comparative Religions

A study of the great religions of the world, with emphasis on how they affect events in the world today. The course explores components and meanings of Hinduism, Buddhism, Confucianism, Taoism, the theistic Western religions (Judaism, Christianity, Islam) and some less common religions. Subjects to be covered include religious ideas and institutions, cosmologies, systems of meaning and salvation. Extensive material on the web will be assigned. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2448 Comparative Religions.)

## HUMN2450

3 Credits

### History and Methods of Science

An interdisciplinary survey of the history of Western science from its roots in the ancient Greek natural philosophy up to the present time. Although the course will cover topics in the philosophy and history of all the sciences, emphasis will be placed on methodological developments. Prerequisite: ENWR1002 Com-

position II: Research and Argument. (Equivalent to PHIL2450 History and Methods of Science.)

## HUMN2452

3 Credits

### Ancient Political Thought

This course examines some of the foundational, political and social ideas of Western and Eastern civilizations in historical context and comparative perspective. Topics include the origins of democracy, the degeneration of the ancient polity and the rebirth of the ancient conception of politics during the Renaissance. Readings encompass history, philosophy and literature, including selections from Confucius, Thucydides, Plato, Aristotle, Aristophanes, Cicero, Livy and Machiavelli. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2452 Ancient Political Thought.)

## HUMN2454

3 Credits

### Music, Power and Freedom

An introduction to political philosophy through music, this course will explore the concepts of freedom and constraint, individualism and tradition, anarchy and order, equality and authenticity, relating them to current issues including censorship and parental-advisory labels, the MP3 file-sharing controversy and musical subversion, from Shostakovich to Iranian hip-hop. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2455

3 Credits

### American Jazz and the Movement for Civil Rights

This course explores the many historical, cultural and political connections between jazz and the American civil rights movement. The course draws upon jazz musical selections as well as readings on jazz and the struggle for civil rights to see how music reflects the social and political context of music makers and listeners and vice versa. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2456

3 Credits

### Dissent in Popular Culture: From Inception to Iraq

The United States was born and thrives in a culture of dissent that has become an inseparable part of the American experience. This course will explore the mutually beneficial relationship between the media and dissent in American culture, touching upon music, literature, television and film. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN2545

3 Credits

### The American Mind

This course explores some of the main sources of American social and political thought from the 18th century to the present, with particular emphasis on the relationship between democratic and individualistic principles. It also will investigate other major themes and problems in American social and political thought, including federalism, individualism, democracy, citizenship, American nationalism, etc. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2545 The American Mind.)

## HUMN3001

3 Credits

### The Nature of Nature

Nature and culture are opposites, or are they? Is the very concept of nature a cultural construct? Or isn't it? Is nature the same thing for the scientist, artist, poet, naturalist and philosopher? Do the world's religions understand nature in the same way? Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3041

3 Credits

### Technology and Values

The course will include, but will not be limited to, a short history of industrial and post-industrial technology, technology as value neutral and value-laden, positive and negative ethical consequences of technology, ethical challenges created by technology (e.g., genetic engineering, cloning, artificial intelligence), ethics and responsibility in a high-tech age and humanism vs. science and technology. Ethical issues in a computerized society will also be examined, e.g. privacy, private property, power concerns related to the global information highway, quality of work, work possibilities in a computer age and computers and the self. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3042

3 Credits

### The Bible and Its Influence

The Bible as a collection of many types of literature, read from a literary point of view. Novels, dramas and poems influenced by the Bible. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to ENGL3377 The Bible and Its Influence.)

## HUMN3220

3 Credits

### Political and Social History of Music

An introduction to music appreciation and history that emphasizes the political, cultural and social influences on music from antiquity to the 20th century. Contents include sacred and secular, vocal and instrumental and folk and art

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music from across the Western world, including modern popular song. No previous musical experience necessary. All course materials, including textbooks, are included. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3221

3 Credits

### Coming of Age in America

This course is a sociocultural examination of the teenager as expressed in American film. The course follows the development of the concept of teenagers in American society over the past five decades in order to gain an understanding of the role of the teenager in influencing and directing social change. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3307

3 Credits

### Slavery and Global Ethics

This course will analyze 17th- and 18th-century fictional and nonfictional representations of race and enslavement in tandem with the rise of Enlightenment political and ethical philosophy. Students will read texts by authors from North and South America, Europe and West Africa, each predicting economic and ethical consequences of the rise of the global economy. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL3307 Slavery and Global Ethics.)

## HUMN3315

3 Credits

### Jerusalem in Jerusalem

The course will explore the centrality of the city of Jerusalem in the life of Judaism, Christianity and Islam. The course will provide the student with the complex history of the city in the life of the monotheistic traditions through the scholarship of Karen Armstrong and through discussions led by the interfaith team of instructors. The capstone of the course will be a two-week visit to the city of Jerusalem, which will include hands-on visits to the holy sites of the three traditions, lectures by Jerusalem-based experts and journal selections of the students. The course will challenge the participants to allow knowledge and experience to inform and shape the students' visions of both their own lives and the life of the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3316

3 Credits

### Babylon the Great: Culture, Religion and Conflict in Iraq

This course is an introduction to the cultural and religious history of Iraq beginning in the fourth millennium BCE and continuing through the present day. Topics will include the invention of writing, the origin of cities, Mesopotamian law and religion, the Epic of Gilgamesh,

the rise of Islam, cultural continuities in the Middle East and the legacy of the ancient Near East in western civilization. Students will engage in a variety of methodological approaches in the humanities as they learn of the rich cultural and religious heritage of Iraq and consider important questions about its future. *FDU NetID (formerly Webmail) account required.* Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to RELI3316 Babylon the Great: Culture, Religion and Conflict in Iraq.)

## HUMN3317

3 Credits

### Ancient Egypt: Mummies/Myth/Magic

This course provides an introduction to the religion, history, society and culture of ancient Egypt, which was one of the most sophisticated and long-lived civilizations in world history. Special attention will be given to funerary literature and religion, cults, magic and ritual, religious art and architecture, the sacred writing system and the religion of daily life. (Equivalent to RELI3317 Ancient Egypt: Mummies/Myth/Magic.)

## HUMN3318

3 Credits

### Jerusalem: The Holy City

A study of Jerusalem, the sacred city for three different world religions, is fundamental to a rich understanding of the history and religions of the Middle East. Beginning in antiquity and continuing through the medieval and modern periods, this course will chronicle the rise, fall and reconstruction of Jerusalem many times over. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3319

3 Credits

### The Holocaust: Philosophical Issues

An introduction to the Holocaust through the use of philosophical and religious essays, historical accounts, memoirs, novels, short stories and plays. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL3319 The Holocaust: Philosophical Issues.)

## HUMN3321

3 Credits

### The Book of Job and Its Interpreters

This course will examine the Biblical book of Job as a work of literature and religious thought and will develop the analysis historically in comparison with ancient near Eastern, classical, medieval and modern philosophical discussions and theological commentaries of the Joban tradition. In this class, students will wrestle with such themes as theodicy, piety, evil, suffering and the nature of the divine-human experience. Prerequisite: ENWR1002 Composition II:

Research and Argument. (Equivalent to RELI3321 The Book of Job and Its Interpreters.)

## HUMN3322

3 Credits

### Latin-American Women Authors

A study in English translation of Latin-American women authors from Sor Juana Ines De La Cruz to the present day. Emphasis will be placed on more recent writers. (Equivalent to LANG3322 Latin-American Women Authors.)

## HUMN3334

3 Credits

### Religion and Politics

This course explores the controversial and sometimes bloody crossroads between politics and religion. Specific topics may include religion as a political construct and instrument of power in society, the role of biblical traditions in the development of church-state relations in the United States, prophetic rhetoric and liberation theologies as public modes of discourse for social justice, morality, ethics and the just-war debate and the development of a suitable political theology for contemporary society. Prerequisite: ENWR1002 Composition II: Research and Argument. Equivalent to RELI3334 Religion and Politics.

## HUMN3350

3 Credits

### Social Life On and Off the Internet

This web-enhanced course addresses social change at the interpersonal level and within frameworks that include family, friendship, partner formation, religion, work and health. It examines the degree of overlay between e-communications and face-to-face and telephone contact and traditional letter writing. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN3396

3 Credits

### South-African Literature

This course will explore the depictions of select countries or regions of the African continent in a variety of texts written by Africans and by newcomers or outsiders to Africa. It aims to provide a sense of the diversity and multiplicity of "Africas" as created by writers from different points of view, with different relationships to Africa at different times. Students will read from among diaries, memoirs, travel narratives, histories, works of journalism, popular magazines and may also sample music and film.

## HUMN3399

3 Credits

### Continental Drift: Sex, Gender and Family in the South Asian Diaspora

A political and cultural study of literary and autobiographical works created by two generations of South Asians (including Salman

# Information Technology

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Rushdie and Jhumpa Lahiri) who have chosen to make their lives and careers beyond the sub-continent. The course centers on urban, cosmopolitan and transnational stories, novels and films in English, and touches upon topics such as gender roles, courtship, marriage, reproduction and child-rearing. *FDU NetID* (formerly *Webmail*) account required. (Equivalent to ENGL3599 Continental Drift: Sex, Gender and Family in the South Asian Diaspora.)

## HUMN4510

3 Credits

### Modern Political Thought

This course introduces students to recurring themes and major problems of modern political and social thought. These include the nature and significance of politics, the meaning of freedom, the value of citizenship, the nature of legitimate authority, the connection between religion and politics, the nature of individual rights, the distinction between nationalism and patriotism and the connection between economic and political life. Particular emphasis will be given to the retrieval of classical political ideas by modern thinkers and the development of distinctly modern political ideas. The course is organized more or less chronologically so these themes can be examined historically as well as theoretically. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4510 Modern Political Thought.)

## HUMN4408

3 Credits

### The British Mind

An interdisciplinary introduction to 19th-century British political thought, literature and scientific achievement held at FDU's Wroxton College in England. Taught in collaboration with prestigious guest lecturers and Wroxton College faculty, the course will examine central figures of 19th-century British intellectual and literary life such as Charles Darwin, John Stuart Mill, Herbert Spencer, William Wordsworth, Charles Dickens and Rudyard Kipling. The course also will feature visits to art, scientific and natural history museums; ecological walks in rural England; and excursions to cultural and intellectual centers such as Oxford, Stratford-upon-Avon and London. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN4409

3 Credits

### The British Imagination: From King Arthur to Harry Potter

British writers have created a variety of imaginary worlds that not only entertain but also foster criticism, analysis and understanding of the real world. This interdisciplinary course examines the continued relevance of the mythic, utopian and dystopian literatures of Great Britain. Held at FDU's Wroxton College in England and taught in collaboration with prestigious guest lecturers and the faculty of

Wroxton College, the course also will feature field visits to art and history museums, nature walks in rural England and excursions to cultural and intellectual centers such as Oxford, Stratford-upon-Avon and London. Among the imaginary worlds that will be discussed are those depicted in Arthurian legends, Swift's *Gulliver Travels*, the science fiction of H.G. Wells, Tolkien's Middle-Earth and J.K. Rowling's Harry Potter series. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN4451

1–3 Credits

### Selected Studies in Humanities

Studies in an area of humanities. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN4452

3 Credits

### Gandhi: His Life, Philosophy and Legacy

An examination of Gandhi's life and work as the leader of India's freedom movement. A critical evaluation of his philosophy and techniques of nonviolent protest, as well as his impact on leaders such as Martin Luther King, Jr., Nelson Mandela and others. The relevance of Gandhi's ideas in the contemporary world will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4452 Gandhi: His Life, Philosophy and Legacy.)

## HUMN4458

3 Credits

### Ethics and Public Affairs

Does morality matter for politics? Or is power the only thing that really counts? This course explores the nature and validity of arguments for contemporary public policy issues such as abortion, capital punishment, racial profiling and the rules of war. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4458 Ethics and Public Affairs.)

## HUMN4459

3 Credits

### Questioning Religion

A discussion class with readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore problems of reason, faith and questioning in the major religious traditions — and in one's own life. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4459 Questioning Religion and RELI4459 Questioning Religion.)

## HUMN4468

3 Credits

### Bollywood and Beyond: India in Film

As India responded to major cultural and technological shifts during the 20th century,

Bollywood was crucial to the creation and reinforcement of the nation's changing images of itself and its people. This study of Indian film reflects these changes and looks at the ways that cultural identities are shaped with reference to popular art, technology, history and contemporary politics. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to COMM4468 Bollywood and Beyond: India in Film.)

## HUMN4470

3 Credits

### The Nature of Evil

Examination of the treatment of evil in works by major writers. Authors will include Dante, Shakespeare, Hawthorne, Emily Bronte, Dostoevsky, Melville, Graham Greene, Flannery O'Connor and Cormac McCarthy. Prerequisite: ENWR1002 Composition II: Research and Argument.

## HUMN4498

3 Credits

### Internship

Practical experience working in a business, government or nonprofit setting or museum, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

# Information Technology

*Lee Gildart and Oswald Haase*  
*School of Computer Sciences and Engineering*

## INFO1101

3 Credits

Lecture/Laboratory 4 hours

### Computer Concepts and Technology

This course introduces the concepts of computer hardware organization and operating systems. A survey of various operating systems including Windows, Mac-OS, Unix, Sun-OS and Linux is conducted. Students learn about the current developments in computers. Topics covered include Boolean algebra, digital system design, buses and addressing, memory systems, micro-processors, computer peripherals, interfacing techniques and performance evaluation.

## INFO1105

3 Credits

Lecture/Laboratory 4 hours

### Software Applications in Business and Technology

This course introduces the students to the software used in business and technology, which includes word processing, spreadsheets, databases, graphic presentations and computing-

# Information Technology

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software packages. Students learn how to use the word processor to create business reports, brochures, newsletters and other applications. They prepare and conduct oral presentations with the aid of presentation software. Spreadsheet, visualization and computing software are used to analyze and evaluate data. Students create databases, queries, forms and reports using the database-development software.

## INFO1201

3 Credits

### Information Technology

This course introduces the students to the career opportunities, current and emerging technologies and the scientific and engineering principles behind information technology. Students study the impact of information technology in the global society. Areas of current interest covered include telecommunications, computer networks, the internet and World Wide Web, multimedia, e-commerce applications, desktop publishing, computer-based systems and instruction technology.

## INFO2101

3 Credits

### Lecture/Laboratory 5 hours Computer Programming for Information Technologists I

Elements of algorithm design and problem solving. Elementary data types and arrays. Basic control structures: sequential, conditional, iterative. Assignment statements. Basic input/output. Elements of methods. Design, coding and implementation of programs in various areas using a language such as Java. Prerequisites: CSCI1105 Survey of Computers and Computer Software and INFO1101 Computer Concepts and Technology. (Equivalent to CSCI1201 Computer Programming I.)

## INFO2102

3 Credits

### Lecture/Laboratory 5 hours Computer Programming for Information Technologists II

Stepwise refinement as a programming tool. Objects and classes. Inheritance polymorphism. Character string manipulation. Advance input/output. Elements of debugging and testing. Design, coding and implementation of programs in various areas using a language such as Java. Prerequisite: grade of C or better in either CSCI1201 Computer Programming I or INFO2101 Computer Programming for Information Technologists I. (Equivalent to CSCI1202 Computer Programming II.)

## INFO2105

3 Credits

### Lecture/Laboratory 4 hours Internet and Web Applications

This course provides an introduction to internet services, the World Wide Web, accessibility, search-engine optimization (SEO), multimedia

and social networking. Students learn how to create and publish web pages using eXtensible HyperText Markup Language (XHTML) and Cascading Style Sheets (CSS) and construct and maintain a website.

## INFO2106

3 Credits

### Lecture/Laboratory 4 hours Website Design and Management

This course introduces students to the principles of website design and management, business applications and security and e-commerce. Students study graphic web-design concepts such as usability, accessibility and scalability. They learn how to create interactive web applications, enhance web pages with dynamic images, implement a web server and integrate the website with a database management system. Prerequisite: INFO2105 Internet and Web Applications.

*Fee*

## INFO3201

3 Credits

### Lecture/Laboratory 4 hours Human Computer Interface

This course introduces the students to the current theories and issues in human-computer interactions. Students learn the techniques and technologies needed for the analysis, design and implementation of human-computer interfaces. They also study usability testing and rapid prototyping. Prerequisite: INFO2101 Computer Programming for Information Technologists I.

## INFO3205

3 Credits

### Lecture/Laboratory 4 hours Digital Media Publishing

This course provides an overview of the design principles of desktop and multimedia publications. Students study the proper rules and procedures for creating publications. They learn how to create interactive multimedia content for both CD-ROM and the World Wide Web using authoring software packages. Topics covered include audio, image and video processing and compression. Prerequisite: INFO2105 Internet and Web Applications.

## INFO3308

3 Credits

### Emerging Communications Technologies

This course surveys the historical, current and emerging communications technologies. Students learn how the emerging communications technologies operate and how they fit in a computer/communications network. The intended applications of these technologies and their advantages and disadvantages are studied. The course considers both wire-based and wireless communications.

## INFO4101

3 Credits

### Lecture/Laboratory 4 hours Data Communications and Computer Networks I

This course provides a comprehensive overview of data communications and computer networks, with emphasis on network simulation and network protocols. The topics to be covered include network components and model, network services and applications, network transport architectures, routing and switching, local area networks, mobile networks and network security and management. Integrated laboratory experience. Prerequisite: INFO1101 Computer Concepts and Technology.

*Fee*

## INFO4102

3 Credits

### Lecture/Laboratory 4 hours Data Communications and Computer Networks II

This course builds upon the networking concepts introduced in INFO4101 Data Communications and Computer Networks I. Topics covered include system administration, communications software, network technologies, LAN models, Ethernet, switches, routers, bridges and hardware components used in a converged network. Students learn how to establish and maintain a local area network and extend their learning to network convergence including media transmission, quality of services and network performance. Integrated laboratory experience. Prerequisite: INFO4101 Data Communications and Computer Networks I.

*Fee*

## INFO4201

3 Credits

### Information Technology Needs Assessment and Management

This course introduces students to the fundamental concepts of needs assessment and management as applied to information technology. Students study how to integrate, maintain and manage information technology in modern organizations. They learn how to systematically assess customer needs and problems and provide them with cost-efficient and effective solutions. Prerequisite: senior standing.

## INFO4205

3 Credits

### Information Technology Capstone Project

Senior students are required to successfully complete an information technology project by utilizing their past course work and design experience, by following professional practice and by exercising sound judgment. The capstone project must be approved and supervised by a faculty member. Students must be within 16 credits of graduation to take this course.



# Italian • Language and Culture Studies

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## INFO4278

3 Credits

### Operating Systems

This course presents an introduction to the fundamental principles of operating systems in terms of resource management and machine virtualization. Topics include system services, process management, process synchronization, threads, CPU scheduling, memory, device and file management and security. Integrated laboratory experience. Prerequisites: ENGR2286 Digital System Design and INFO2101 Computer Programming for Information Technologists I. (Equivalent to CSCI3278 Operating Systems.)

## INFO4410

3 Credits

### Foundations of Cybersecurity

The topic of Information Assurance and Security (IAS) has become increasingly important as computer systems are being subjected to continuous and more sophisticated attacks. This course presents an introduction to the application and management of mechanisms for cybersecurity and information assurance in computing, communication and organizational systems. Topics covered include malware and social engineering, vulnerability assessments, network security, authentication, basic cryptography and risk analysis. Prerequisite: CSCI3240 Computer Networks, EENG4342 Data Communications and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to CSCI3410 Foundations of Cybersecurity.)

## INFO4498, INFO4499

6 Credits (3 Credits Each Semester)

### Co-op in Information Technology

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

## INFO4844

3 Credits

### Programming for the Internet

This course introduces students to the fundamentals of Microsoft.NET framework, the ASP.NET web-development environment and C# programming. It also covers XML web services, SQL Server database and Microsoft web server IIS (Internet Information Services). Students study how to develop powerful websites and web applications that access databases using dynamic, server-side programming in C#. They also learn how to deploy such applications over various servers. Prerequisites: CSCI3268 Database Systems and INFO2106 Website Design and Management. (Equivalent to CSCI3444 Programming for the Internet.)

## INFO4875

3 Credits

### Honors in Information Technology

Independent study in information technology for students in the University Honors Program under the direction of a specific faculty member with the approval of the school director. This course can be taken in lieu of INFO4205 Information Technology Capstone Project. Prerequisite: admission to the University Honors Program.

## INFO4891

3 Credits

### Network and Information Security

Coverage of potential threats to a stand-alone or networked computer. The course includes strategies to harden the system against these threats and discusses the liability of the network administrator for crimes committed via the network. Business issues considered include social engineering, continuity, data backup and recovery and risk analysis. Prerequisite: CSCI3240 Computer Networks, EENG4342 Data Communications and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to CSCI3391 Network and Information Security.)

# Italian

## School of the Humanities

### ITAL1101

3 Credits

#### Elementary Italian I

An introduction to contemporary spoken and written Italian.

### ITAL1102

3 Credits

#### Elementary Italian II

A continuation of ITAL1101 Elementary Italian I. Prerequisite: ITAL1101 Elementary Italian I or equivalent.

### ITAL2103

3 Credits

#### Intermediate Italian I

A continuation of the study of contemporary spoken and written Italian. Prerequisite: ITAL1102 Elementary Italian II or equivalent.

### ITAL2104

3 Credits

#### Intermediate Italian II

Continuation of ITAL2103 Intermediate Italian I. Prerequisite: ITAL2103 Intermediate Italian I or equivalent.

### ITAL4430

1–3 Credits

#### Selected Studies in Italian

Studies in an area of Italian language and/or literature.

# Language and Culture Studies

## School of the Humanities

### LANG2201

3 Credits

#### Cultural Awareness and Languages

This course will focus on the role of language in culture, the interaction of languages globally and at home and the development of a repertoire of adaptive behaviors in order to be able to experience success in communication with others in the workplace and in the community.

### LANG3301

3 Credits

#### The World of Language

Introduction to the concept of language and exploration of the great variety of languages surrounding us, its interrelationship and its political, sociological and cultural impact.

### LANG3303

3 Credits

#### Myths and Folk Tales of Continental Europe

Knowledge and beliefs embodied in the myths and folk tales of various Western cultures.

### LANG3304

3 Credits

#### Nobel Prize Winners as Representatives of Their Cultures

The works of Gide, Camus, Garcia Marquez, Mistral, Mann and Boll, seen against the background of their particular cultures.

### LANG3306

3 Credits

#### Literature and Culture in Fin-de-Siècle Europe

Cultural crises as reflected in the artistic and literary movements in continental Europe.

### LANG3307

3 Credits

#### The Age of Romanticism in Continental Europe

Romantic style as manifested in different European cultures with particular emphasis on the literature of France, Spain and Germany.

### LANG3308

3 Credits

#### Images of Women in European Literature

The myth of femininity chosen from such writers as Goethe, Flaubert, Gide, Garcia Lorca, Brecht, de Beauvoir, Colette, George Sand and Christa Wolf.  
*Spring*

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LANG3311

3 Credits

**20th-century French, German and Spanish Theater**

The theater of Brecht, Artaud, Genet and Garcia Lorca, among others.

LANG3312

3 Credits

**Latin-American Novel**

Readings from the works of Carlos Fuentes, Manuel Puig, Ariel Dorfman, Alejo Carpentier, Jose Donoso and Mario Vargas Llosa.  
*Spring*

LANG3319

3 Credits

**Short Story: Reflection of Language and Culture**

A study of French, German, Italian, Russian and Ukrainian short stories.

LANG3321

3 Credits

**Linguistics: Origin of Languages**

This course includes, among other issues, the fundamental concepts and origins of language. It will emphasize comparisons, modern influences and idioms in modern languages.

LANG3322

3 Credits

**Latin-American Women Authors**

A study in English translation of Latin-American women authors from Sor Juana Ines De La Cruz to the present day. Emphasis will be placed on more recent writers. (Equivalent to HUMN3322 Latin-American Women Authors.)

LANG3324

3 Credits

**The Latin-American Short Story**

Close readings of short stories from a variety of time periods and nationalities, mainly from Latin America. Focus will be on the uses of language and techniques to reflect on culture, communities and historical contexts. Prerequisite: ENWR1002 Composition II: Research and Argument.

LANG3333

3 Credits

**Chinese Language Through Literature**

This course is designed to familiarize students with major Chinese literary forms, works and authors in the context of cultural and social history through language. Does not require knowledge of Chinese literature or language.

LANG3335

3 Credits

**Contemporary Arabic Thought and Cultures**

This course will provide opportunities for students to become familiar with Arab history and culture and open up avenues for exploring the Arab world.

LANG3336

3 Credits

**Russian Culture/Modern Era**

This class covers Russian culture — including food, dance, music, history, architecture, literature and customs — from the period of the czars to contemporary times. This course offers the overview and study of the Russian modern culture and civilization. The focus of this course will be to provide the students with the tools and methodology of studying culture in historical, geographic, social and political contexts as it relates to changes and traditions associated with the Russian-speaking world.

LANG3340

3 Credits

**French Language and Culture: Global Perspective**

A study of the influence of the French language and culture in Francophone countries; representations of major Francophone writers from the Caribbean islands to the African continent.

LANG3344

3 Credits

**The World Wars and European Languages**

A study of the great literature that emerged from the horror and heroism of World Wars I and II. Students will analyze the content of various literary works.

LANG4450

3 Credits

**Literary Classics in Translation**

Readings from the works of Milosz, Chekhov, Turgenev, Mauriac, Dumas fils, Boccaccio, Goethe and Hoffman.

# Marine Biology

## School of Natural Sciences

MBIO1118

3 Credits

**Lecture 2 hours  
Beach Ecology**

Visits to various coastal marine environments studied in MBIO1128 Laboratory: Beach Ecology. Identification and experiments on marine organisms to gain an understanding of their way of life. Corequisite: MBIO1128 Laboratory: Beach Ecology.

MBIO1128

0 Credits

Laboratory 4 hours

**Laboratory: Beach Ecology**

Fieldwork and experiments illustrating the topics discussed in MBIO1118 Beach Ecology. Corequisite: MBIO1118 Beach Ecology.

*Fee*

MBIO1209

4 Credits

Lecture 2 hours

**Introduction to Marine Biology**

Basic study of the marine environment, with emphasis on the ecological aspects of the ocean. Types and characteristics of marine organisms and their interactions with one another as well as with the physical, chemical and geological sectors of the ocean. Corequisite: MBIO1219 Laboratory: Introduction to Marine Biology.

MBIO1219

0 Credits

Laboratory 4 hours

**Laboratory: Introduction to Marine Biology**

Experiments illustrating the topics discussed in MBIO1209 Introduction to Marine Biology. Corequisite: MBIO1209 Introduction to Marine Biology.

*Fee*

MBIO3200

4 Credits

Lecture 2 hours; Laboratory 2 hours

**Tropical Marine Vegetation**

An introduction to the realm of marine vegetation. The main objectives of this course are (1) to teach the student field and laboratory techniques for research on the biology, taxonomy and ecology of marine vegetation; (2) to review the taxonomy and distribution of marine plants, macro-algae, seagrasses, marsh plants and mangroves; and (3) to acquire applied knowledge of the ecology and physiology of marine plants by running field experiments. Prerequisites: BIOL1251, BIOL1253 General Biology I and BIOL1252, BIOL1254 General Biology II or a semester of botany.

*Fee*

MBIO3400

4 Credits

Lecture 2 hours; Laboratory 2 hours

**Tropical Marine Invertebrates**

A study of the evolution, reproduction, development, behavior, anatomy, physiology and ecology of marine invertebrate taxa. The laboratory will include dissections, collections, identifications and experimentation on tropical marine invertebrates. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology.

*Fee*

# Mathematics

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus**MBIO3650****4 Credits****Lecture 3 hours****Physiology of Marine Animals**

Osmoregulatory, respiratory and sensory physiology of selected marine invertebrates and vertebrates. Prerequisites: BIOL1251, BIOL1253; BIOL1252, BIOL1254 General Biology I, II and MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology. Corequisite: MBIO3651 Laboratory: Physiology of Marine Animals.

*Fall, Spring***MBIO3651****0 Credits****Laboratory 4 hours****Laboratory: Physiology of Marine Animals**

Experiments illustrating the topics in MBIO3650 Physiology of Marine Animals. Measurement of water content, oxygen uptake and phototaxis of selected marine invertebrates. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II, MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology. Corequisite: BIOL3650 Physiology of Marine Animals.

*Fee***MBIO3700****3 Credits****Lecture 2 hours; Laboratory 2 hours****Tropical Marine Ecology**

The course discusses the interrelationship of marine organisms within their environments. The course covers measurement of the biogeochemical parameters which define marine ecosystems such as substrate, light, salinity, oxygen and nutrients. Emphasis will be given to understanding the properties of seawater as a medium for life, spatial and temporal variation in physical factors, nutrient links, inverted pyramids of standing biomass, tropical marine food webs, intertidal zonation, abundance and products. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology.

*Fee***MBIO3900****4 Credits****Lecture 2 hours; Laboratory 2 hours****Tropical Marine Vertebrates**

A study of the evolution, reproduction, development, behavior, anatomy, physiology and ecology of marine vertebrate taxa. The laboratory will include dissections, collections, identifications and experimentation on tropical marine vertebrates. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology.

*Fee***MBIO4201****3 Credits****Marine Biology Research I**

Students will select, design and execute and collect data for a research project in marine biology.

*Fall**Fee***MBIO4202****1 Credit****Marine Biology Research II**

Students will analyze data and write a scientific research paper in marine biology from data collected in MBIO4201 Marine Biology Research I. Prerequisite: MBIO4201 Marine Biology Research I.

*Spring**Fee*

## Mathematics

*Lee Gildart and Oswald Haase*  
**School of Computer Sciences and Engineering**

**MATH0198****4 Credits\*****Computation and Algebra Skills**

Precollege mathematics: basic numerical concepts, fractions, operations with signed numbers, introductory algebra, graphs, operations on polynomials, simple and simultaneous linear equations. MATH0198 Computation and Algebra Skills is designed for students with deficiencies in both computational mathematics and elementary algebra. Placement in MATH0198 Computation and Algebra Skills is made by the Academic Resource Center and Academic Advising based on performance on a screening test. No credit toward graduation requirements. Prerequisite credit only.

*Fall, Spring***MATH0298****3 Credits\*****Algebra Skills**

Precollege mathematics: basic arithmetical concepts, graphs and charts, introductory algebra. No credit toward graduation requirements. Prerequisite credit only.

*Fall, Spring***MATH1101****3 Credits****Comprehensive Mathematics**

Selected topics from logic, set theory, combinatorics, probability, matrices, systems of linear equations, linear programming, graphs.

*Fall, Spring***MATH1105****4 Credits****College Algebra**

Signed numbers, algebraic expressions, factoring, fractions, first-degree equations, radicals, graphical methods, quadratic equations, quadratic systems, binomial theorem. Prerequisites: elementary algebra and geometry.

**MATH1107****4 Credits****Precalculus**

Algebraic operations, functions and graphs, trigonometric functions, graphs of trigonometric functions, factoring, exponents, radicals, logarithms, trigonometric relations, oblique triangles, sets of equations, quadratic equations, equations of higher degree. Prerequisite: intermediate algebra.

*Fall, Spring***MATH1109****4 Credits****Geometry Fundamentals**

This course is designed for current and prospective middle-school and elementary-school teachers. Possible topics include: basic geometry theorems and constructions; polygons and polyhedra; the Pythagorean Theorem; symmetry, similarity and scaling; dynamic geometry using computer software and the internet; properties of two- and three-dimensional spaces; coordinate geometry and measurement; analytical and transformational geometry; and history of geometry. Prerequisite: teacher certification, MATH1101 Comprehensive Mathematics or higher-number mathematics course.

**MATH1201****4 Credits****Calculus I**

Slope, equations of lines, slope of a curve, rate of change of a function, derivatives of algebraic and trigonometric functions, maxima and minima, the Mean Value Theorem, indeterminate forms, the Fundamental Theorem of Calculus, basic techniques of integration. Prerequisites: intermediate algebra and trigonometry or a grade of C- or better in MATH1107 Precalculus.

*Fall, Spring***MATH2202****4 Credits****Calculus II**

Indefinite and definite integral, methods of integration. Infinite series. Taylor Series. Polar coordinates, parametric equations. Prerequisite: a grade of C- or better in MATH1201 Calculus I.

*Fall, Spring***MATH2205****3 Credits****Calculus III**

Lines and planes in 3-space. Vectors, functions

\*Prerequisite credits are credits that do not count toward graduation nor are averaged into the cumulative grade point ratio (CGPR).

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of several variables, partial derivatives, multiple integrals, line integrals. Prerequisite: a grade of C- or better in MATH2202 Calculus II.

## MATH2210

3 Credits

### Differential Equations

First-order linear differential equations, linear differential equations with constant coefficients, variation of parameters, undetermined coefficients, Laplace transforms, solutions in terms of power series, numerical solutions with predictor-corrector and Runge-Kutta methods. Prerequisite: MATH2202 Calculus II.

## MATH2243

3 Credits

### Statistical Programming

This is an in-lab SAS programming course, including importing and exporting files, predictive data modeling and exploration (mixed-models analyses, multivariate statistical analysis, longitudinal analysis and survival analysis) and a programming approach to report writing. Prerequisites: MATH1105 College Algebra and elementary knowledge of a programming language.

## MATH2255

3 Credits

### Discrete Structures

Logic, sets, functions, algorithms. Integers, induction and recursion. Relations, posits, equivalence relations, digraphs and matrix representations. Boolean algebra, applications to logic, Boolean identities, Boolean functions, minimization of circuits. Graphs. Trees. Prerequisite: MATH2202 Calculus II or permission of instructor.

## MATH2337

3 Credits

### Applied Statistics I

An introductory course that covers basic probability, descriptive statistics and inferential statistics as applied to biology and health care. Topics emphasize problems in design, randomization, analysis and interpretation of real experiments and surveys. Analyses focus on tests of hypotheses (using normal and binomial methods) and correlation and regression analysis.

## MATH2338

3 Credits

### Applied Statistics II

This follow-up course to MATH2337 Applied Statistics I covers a wider range of applied statistical techniques, analysis of variance (ANOVA), factor and cluster analysis, multiple linear regression, cross-tab and distribution-free analysis. The course would touch upon more advanced topics such as modeling, experimental design, error correction, rare events and graphical methods. Prerequisite: MATH2337 Applied Statistics I.

## MATH3220

3 Credits

### Linear Algebra

Vector spaces and linear transformations; systems of linear equations, bases, matrix representations of linear transformations, matrix algebra, eigenvalues and eigenvectors, determinants, canonical forms, inner product spaces. Prerequisite: MATH2202 Calculus II.  
*Fall, Spring*

## MATH3225

3 Credits

### Abstract Algebra

Groups, cyclic groups, subgroups, product and quotient groups, homomorphisms and isomorphisms. Rings, integral domains and fields. Prerequisite: MATH2202 Calculus II.

## MATH3230

3 Credits

### Analysis

Completeness of real numbers, convergence of sequences and series, topology of the real number line, limits and continuity of functions, differentiation, integration, proofs of the major theorems of elementary calculus. Prerequisite: MATH2202 Calculus II.

## MATH3237

3 Credits

### Probability and Statistics I

Sample spaces, discrete and continuous random variables. Point and Interval Estimation. Tests of Statistical Hypotheses. Prerequisite: MATH2202 Calculus II.

## MATH3238

3 Credits

### Probability and Statistics II

A continuation of MATH3237 Probability and Statistics I including Goodness of Fit Tests, Linear Models, Markov Chains, optional topics. Prerequisite: MATH3237 Probability and Statistics I.

## MATH3240

3 Credits

### Introduction to Numerical Methods and Analysis

MATLAB-based introduction to numerical methods. Introduction to MATLAB, analysis of numerical error and algorithmic convergence rates, root-finding methods, curve fitting and interpolation, least squares and model optimization, numerical differentiation and integration, numerical solution of ordinary differential equations. Prerequisite: MATH2210 Differential Equations.

## MATH3275

3 Credits

### Mathematics of Operations Research

An introduction to mathematical programming through the Simplex Method for linear program-

ming and the transportation algorithm. Additional topics to be selected from nonlinear programming, queuing theory and Markov processes. Prerequisite: knowledge of matrices and probability.

## MATH3316

3 Credits

### Partial Differential Equations

Fourier series, derivations and solutions of the partial differential equations satisfying auxiliary conditions as applied to equations of classical mathematical physics in one and several dimensions, orthogonal functions and eigenfunctions. Prerequisite: MATH2210 Differential Equations.

## MATH3331

3 Credits

### Higher Geometry

Axiomatics, groups of transformations and invariants. Erlanger Program, Euclidean and Lobachevskian geometry, special topics.

## MATH3335

3 Credits

### Complex Variables

Analytic functions. Cauchy's integral theorem and consequences, calculus of residues, entire and meromorphic functions, conformal mapping. Prerequisite: MATH3230 Analysis.

## MATH3341

3 Credits

### Advanced Engineering Mathematics

Vector algebra, vector calculus, gradient, divergence, curl. Line and surface integrals, Green's theorem, Stokes' theorem, divergence theorem. Vector spaces, dot products, matrices, linear equations, determinants, eigenvalues, diagonalization, complex analysis, complex integration, power series, residue theorem. Prerequisite: MATH2203 Calculus III.

## MATH3350

3 Credits

### Applied Mathematics

Operators, function spaces, applications to ordinary and partial differential equations. An introduction to the theory of distributions and operational calculus. Prerequisite: MATH3220 Linear Algebra.

## MATH4430

1–3 Credits Each Semester

### Selected Studies in Mathematics

Advanced studies in special fields of mathematics.

## MATH4475, MATH4476

Variable Credits

### Honors Mathematics

Independent study in mathematics for students in the University Honors Program under the direction of a specific faculty member with

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approval of the school director. Prerequisite: admission to the University Honors Program.

## MATH4498

3 Credits

### Co-op Mathematics

Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, University course work and career development skills.

Students are encouraged to complete two complementary co-op courses.

## MATH4800

1–3 Credits Each Semester

### Independent Study in Mathematics

Independent study under the direction of a specific faculty member after consultation with the school director.

# Mechanical Engineering

*Lee Gildart and Oswald Haase*  
*School of Computer Sciences and Engineering*

## MENG2232

3 Credits

Lecture/Laboratory 4 hours

### Mechanical Measurement and Devices

Study of measurement of distance, work, energy, force, pressure and thermal quantities. Use of testing machines and industrial mechanical components. Corequisite: MATH1105 College Algebra or equivalent.

Fall

Fee

## MENG2235

3 Credits

Lecture/Laboratory 4 hours

### Manufacturing Processes

Study of methods in manufacturing. Theory and practice of turning, machining, drilling, etc., of metals and other materials.

Spring

Fee

## MENG3150

3 Credits

### Thermal Systems Analysis and Design

Analysis, design, modeling, simulation and optimization of thermal systems as applied to heat exchange, power generation, air conditioning and refrigeration. Economic analysis. Thermo-economic analysis and evaluation.

Prerequisite: ENGR3351 Applied Thermodynamics.

Fall

## MENG3155

3 Credits

### Heat Transfer

Three modes of heat transfer: conduction, convection and radiation. Steady and transient heat conduction. Forced and free convection. Radiation heat transfer. Heat-exchanger principles. Prerequisites: ENGR3351 Applied Thermodynamics, ENGR4254 Fluid Mechanics and MATH2210 Differential Equations.

## MENG3230

3 Credits

Lecture/Laboratory 4 hours

### Computer-aided Design and Manufacturing

Concepts and methods of computer-aided design and manufacturing (CAD/CAM). Design, modeling and simulation. Solid modeling software. Introduction to finite element analysis. Part, assembly and mechanism design. 3-D solids, surfaces and models. 2- and 3-D drawings. Generating computer numerical control (CNC) sequences for CAM. Application to engineering projects. Prerequisites: ENGR1223 Introduction to CAD, ENGR2228 Strength of Materials, MATH3220 Linear Algebra or permission of instructor and MENG2235 Manufacturing Processes.

Spring

## MENG3288

3 Credits

Lecture/Laboratory 4 hours

### Microcontroller System Design

Microcontroller architectures. Input/output, interrupts and timers. Programming of parallel ports, serial communication interfaces. Integrated laboratory experience. Prerequisite: ENGR1204 Programming Languages in Engineering, ENGR2286 Digital System Design or permission of instructor.

Spring

Fee

## MENG4040

3 Credits

Lecture/Laboratory 4 hours

### Heating, Ventilation and Air Conditioning

An introduction to some of the essential knowledge required to enter the field of HVAC&R engineering. Topics include: physical principles, heating loads, hydronic piping systems and terminal units, cooling-load calculations, psychrometrics, fluid flow in piping and ducts and air-distribution devices, air conditioning systems and equipment, refrigeration systems and equipment. Prerequisite: ENGR3351 Applied Thermodynamics.

Fall

## MENG4041

3 Credits

### Heating, Ventilation and Air Conditioning and Refrigeration Controls

Elements of control systems: sensors, operators, controls and control strategies (for HVAC&R) will be covered. A brief review of the processing of moist air (psychrometrics) will be offered. Finally, control systems for process control and the use of analog and direct digital controls will be applied to heating, ventilation, air conditioning and refrigeration. Prerequisite: MENG4040 Heating, Ventilation and Air Conditioning or permission of instructor.

Spring

## MENG4248

3 Credits

Lecture/Laboratory 4 hours

### Mechanical Engineering Design I

Principles of machine design, elements of stress analysis, rivets, belt and chain drives, springs and synthesis of mechanical systems, materials and their use in design. Prerequisites: ENGR2228 Strength of Materials and ENGR3431 Dynamics.

Fall

## MENG4250

3 Credits

Lecture/Laboratory 4 hours

### Mechanical Engineering Design II

Design of gears, clutches, shaft and couplings, bearings, brakes, lubrication and synthesis of mechanical systems. Prerequisite: MENG4248 Mechanical Engineering Design I.

Spring

## MENG4355

3 Credits

### Analog and Digital Control

Closed-loop feedback systems, general feedback theory, control-system design, stability, sensitivity, error response, root-locus, compensation techniques, digital control, discrete-time systems, design in Z-domain, controllability, optimal control. Prerequisites: EENG2221 Signals and Systems I and MATH2210 Differential Equations.

Fall

## MENG4356

3 Credits

### Stress and Vibration Analyses

The differential equations of stress and strain, shear flow, virtual flow, energy principles, curved beams, noncircular bars. Computer-oriented problem solving. Analysis of motion arising from lateral and torsional vibration of systems, free and forced vibrations, damping, isolation, balancing. Prerequisites: ENGR2228 Strength of Materials, ENGR3431 Dynamics and MATH2202 Applied Calculus II.

Spring

# Medical Technology

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## MENG4360

3 Credits

Lecture/Laboratory 4 hours

### Industrial Automation

Manufacturing systems and their mechanization: design and analysis on control systems for production, materials handling and inventory logistics. Manufacturing automation and robotics technologies (requirements analysis and design). Electromechanical hardware and computer control. Economics of robotics and machine vision. Prerequisites: MENG2230 Manufacturing Processes; MENG4355 Analog and Digital Control or permission of instructor. *Spring*

## MENG4365

3 Credits

### Advanced Fluid Mechanics

Mass, momentum and energy-conservation equations. Navier-Stokes equation for viscous flows. Lubrication theory. Boundary layer flow. Potential flow. Turbulent flow. Compressible flow. Pumps and blowers. Piping systems. Prerequisite: ENGR4254 Fluid Mechanics.

## MENG4375

3 Credits

Lecture/Laboratory 4 hours

### Electrical Energy Conversion

General considerations of electromagnetic phenomena and magnetic circuits. Exercises with ferromagnetic loops and air gap. Transformer theory — equivalent circuits and phasors. Regulation and efficiency evaluation, rotating machinery, DC and three-phase systems. Power relationships, operating characteristics. Prerequisite: EENG2221 Signals and Systems I.

*Fall*

## MENG4384

1 Credit

2 Contact Hours

### Preparation for Senior Design Project

Research on choosing a design project, incorporating appropriate engineering standards and multiple realistic constraints and writing a project proposal for the mechanical engineering senior project. Prerequisite: Senior status. Co-requisite: MENG4248 Mechanical Engineering Design I.

*Fall*

## MENG4386

2 Credits

2 Contact Hours

### Senior Design Project

Students work on capstone design projects using the knowledge gained through past course work, following professional practice, applying design methodologies and exercising sound engineering judgment. Prerequisite: MENG4384 Preparation for Senior Design Project.

*Spring*

# Medical Technology

Henry P. Becton School of Nursing  
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## MEDT1150

3 Credits

### Bioethics

An interdisciplinary exploration of ethical issues in today's health care practice with particular emphasis on the role of the professional in ethical decision making. Topics include values clarification, ethical theories and principles, human subjects in research, informed consent, advanced directives, euthanasia and physician-assisted suicide. Work assignments include case analysis using ethical decision-making models. Prerequisite: faculty permission.

## MEDT1201

3 Credits

Lecture 3 hours

### Introduction to Medical Technology

Hospital laboratory, relationship of medical technology to patient and community health, organization and role of each clinical laboratory department, introduction to diseases, medical terminology.

## MEDT4205, MEDT4206

32 Credits (16 Credits Each Semester)

### Clinical Laboratory Education I, II

The student technologist rotates through the hospital departments, gaining didactic and practical experience under supervision in tests and procedures in clinical chemistry, hematology, coagulation, blood banking, serology, microbiology, immunohematology and clinical microscopy. Written examinations cover each phase of the work. Prerequisites: for MEDT4205 Clinical Laboratory Education I, six semesters of appropriate college work; MEDT4205 Clinical Laboratory Education I is a prerequisite for MEDT4206 Clinical Laboratory Education II.

*Fee*

## MEDT4501

3 Credits

### American Health Care

This class will examine and critically analyze the United States health care system, emphasizing the major trends and issues that have led the country to where it is today. In addition to providing a historical perspective, this course will establish a context for analyzing the current, varied approaches to health care financing, delivery and reform. While this course will focus on the U.S. health care system, the systems of other nations will be reviewed for comparison.

## MEDT4302

3 Credits

### Health Care Law and Policy

This class will analyze the complexity of the American health care system and the law and policy issues that must be confronted to achieve meaningful health care reform. Students will gain an appreciation of the dilemmas facing health care law and policymakers, providers, patients and how to balance cost, quality and access. It examines specific health care organization aspects such as the medical profession, hospitals, managed-care organizations and government health care programs. This course will also discuss law and policy changes that have major impacts on American health care in the past decade.

## MEDT4303

3 Credits

### Global Health

This course will cover the main principles of global health and introduce the student to the world's vast diversity of determinants of health and disease. Current and emerging health priorities such as infectious diseases, socioeconomic status and health, human rights, culture and health, maternal and child health, water and sanitation, parasitic diseases, health inequities and major global initiatives for disease prevention and health promotion.

## MEDT4305

3 Credits

### Current Topics in Health Science I

This is part one of the capstone course in the student's allied health discipline. The course will cover current topics/advances in the student's discipline. Students will review scientific literature on current advances and analyze the impact on the future of their allied health discipline.

## MEDT4306

3 Credits

### Current Topics in Health Science II

This is part two of the capstone course in the student's allied health discipline. The course will cover current topics/advances in the student's discipline. Students will review scientific literature on current advances and analyze the impact on the future of their allied health discipline. Prerequisite: MEDT4305 Current Topics in Health Science I.

## MEDT4307

3 Credits

### Health Studies Practicum

The health studies practicum is the capstone course for the health studies major. The course will include an internship in the field. Current topics, scientific literature and advances in the student's area of interest will be covered in this course.

**Music • Nursing**University College: Arts • Sciences • Professional Studies  
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**3 Credits****Health Care Management**

An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisite: faculty permission.

**NURS4430**  
**3 Credits****Nursing Research**

Students are introduced to the research process. The course focuses on the professional health care worker as a research consumer. Critical appraisal skills are developed as a basis for evaluating research findings for application to clinical practice. Learning activities are designed to facilitate the students' understanding of allied health research, the research-utilization process and professional-role development. Prerequisite: faculty permission.

**Music****School of Art and Media Studies****MUSIC1102**  
**3 Credits****Music History and Literature**

Music from Gregorian chant to present-day forms presented through use of musical illustration. (Not open to those who take MUSIC1111, MUSIC1112 Development of Music I, II.)

*Fee***MUSIC1105**  
**2 Credits****Music History**

Music from the Middle Ages to the present. Styles, forms and characteristics of vocal and instrumental music of each period. (Not open to those who take MUSIC1111, MUSIC1112 Development of Music I, II.)

**MUSIC1107**  
**3 Credits****World Music**

A course of music appreciation to acquaint the student with an overview of the global music scene.

**MUSIC1108**  
**3 Credits****From Elvis to J. Lo:****Pop Music of the Past 50 Years**

The class will involve the study of the development of popular music in America during the past half century in its cultural and historical contexts. The focus will be on the music itself—how and why it came about, its significance to youth and the broader American and world

cultures and what influence it will have on the future.

**MUSIC1111**  
**3 Credits****Development of Music I**

Music of Western civilization from ancient Greece to 1750, with some attention to significant historical and cultural influences. (Not open to those who take MUSIC1102 Music History and Literature or MUSIC1103 Music History.)

*Fee***MUSIC1112**  
**3 Credits****Development of Music II**

Music of Western civilization from 1750 to the contemporary period presented with an emphasis on stylistic differences. (Not open to those who take MUSIC1102 Music History and Literature or MUSIC1103 Music History.) Prerequisite: MUSIC1111 Development of Music I.

*Fee***MUSIC3301**  
**2 or 3 Credits****American Jazz and Popular Music**

American popular music styles. Ballads through ragtime, blues and various idioms of jazz. Third credit requires additional research.

**Nursing****Henry P. Becton School of Nursing  
and Allied Health****NURS1101**  
**2 Credits****A Preview of Professional Nursing**

This course will introduce the student to nursing. The focus is on the history of nursing, overview of theories and frameworks used in professional nursing practice, standards of the profession including legal, ethical and moral dimensions and professional roles.

**NURS2003**  
**3 Credits****Lecture 2 hours****Fundamentals of Nursing I**

Focuses on the development of critical-thinking skills in order to formulate independent judgments, make decisions essential for nursing practice and develop fundamental professional attitudes and values. To this end, students are introduced to critical-thinking skills, nursing theory, the nursing process, role socialization and the nursing curriculum's conceptual model of caring as it applies to the well elderly population. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; CHEM1107, CHEM1117 Chemistry for Health Sciences; and MATH1105 College Algebra. Corequisite:

NURS2113 Laboratory: Fundamentals of Nursing I.

**NURS2004**  
**3 Credits****Lecture 2 hours****Fundamentals of Nursing II**

This course focuses on the theoretical basis of essential fundamental psychomotor skills necessary for professional nursing practice. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology. Corequisite: NURS2114 Laboratory: Fundamentals of Nursing II.

**NURS2005**  
**3 Credits****Lecture 2 hours****Professional Communication Skills:  
Individual, Family and Groups**

This course builds on the development of critical-thinking skills to assist students in defining who they are, as individuals, in relation to attitudes to self and interactions with others, including one's family. Topics include an assessment of self, stress management, empowerment, family-systems concepts, cultural awareness and bereavement. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory, NURS2210 Pathophysiology and PSYC1105 General Psychology.

**NURS2007**  
**3 Credits****Pharmacotherapeutics**

This course provides the students with current knowledge concerning the wide spectrum of pharmacologic agents. Emphasis is placed on the administration of safe and therapeutically effective drug therapy. Major drug classifications are discussed in relation to administration methods, pharmacologic effects, toxicity and nursing precautions and implications. Pharmacotherapeutics is discussed in relation to life-span development changes, religious preferences and cultural customs. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology. Corequisites: NURS2004 Fundamentals of Nursing II and NURS2114 Laboratory: Fundamentals of Nursing II.

**NURS2113**  
**0 Credits****Laboratory 6 hours****Laboratory: Fundamentals of  
Nursing I**

This nursing practicum is designed to provide students with opportunities to apply the nursing

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process in a geriatric setting. Health promotion and health maintenance are emphasized, as well as adaptations in self-care required as a result of age-related changes. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisite: NURS2003 Fundamentals of Nursing I.

## NURS2114

0 Credits

Laboratory 6 hours

### Laboratory: Fundamentals of Nursing II

This nursing practicum is designed to provide students with opportunities for continued discussion and application of the nursing process with adult clients in a variety of clinical settings. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology. Corequisite: NURS2004 Fundamentals of Nursing II.

## NURS2200

4 Credits

Lecture 3 hours

### Health Assessment

This course focuses on the development of comprehensive health-assessment skills. Measures of physical and functional status and health-promotion strategies for each body system will be discussed. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I and NURS2201 Health Assessment Laboratory.

## NURS2201

0 Credits

Laboratory 4 hours

### Health Assessment Laboratory

This nursing practicum provides students with opportunities to apply the nursing process in primary health care. Students obtain a health history and perform physical-assessment skills with a peer and another well adult. Data collected are systematically categorized and critically analyzed to formulate nursing diagnoses and develop a nursing-care plan. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for

Health Sciences. Corequisite: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I and NURS2200 Health Assessment.

## NURS2210

3 Credits

### Pathophysiology

This course focuses on alterations in biologic processes that affect the body's homeostasis, including etiology, pathogenesis, clinical manifestations and treatment of selected health problems. Knowledge of basic and clinical sciences is applied to simulated, clinical, nursing-practice situations. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment and NURS2201 Health Assessment Laboratory. *Generic: Fall*

## NURS2217

2-3 Credits

### Information Systems and Applications in Health Care

This course serves as an introduction to nursing and health care informatics. Course content includes an overview of computer basics, information terminology, data integrity and management, informatics theory, system life cycle and clinical applications. The purpose of this course is to provide a basic understanding of nursing and health care informatics and to facilitate decision-making based upon data, information, knowledge and wisdom.

## NURS3208

3 Credits

### Introduction to Health Care Economics

This course introduces the student to basic economic concepts and theories to analyze selected issues/problems in health care and to inform decision making and policy development. Fiscal management and basic budgeting concepts also will be covered.

## NURS3209

3 Credits

### Bioethics

An interdisciplinary exploration of ethical issues in today's health care practice with particular emphasis on the role of the professional in ethical decision making. Topics include: values clarification, ethical theories and principles, human subjects in research, informed consent, advanced directives, euthanasia and physician-assisted suicide. Work assignments include case analysis using ethical decision-making models. Prerequisites: BIOL2125, BIOL2126

Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology.

## NURS3300

5 Credits

Lecture 4 hours

### Medical-Surgical Nursing I

This course focuses on selected health needs of adult clients and integrates physiologic, socio-cultural and behavioral alterations throughout. A broad, scientific knowledge base is presented, with an emphasis on prevention, caring, empowerment and critical thinking. Current nursing therapies for managing care of adults with pathophysiologic alterations are presented. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS3209 Bioethics. Corequisite: NURS3301 Medical-Surgical Nursing Laboratory I.

## NURS3301

0 Credits

Laboratory 7 hours

### Medical-Surgical Nursing Laboratory I

This nursing practicum provides students with opportunities to apply the nursing process in adult acute-care settings. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS3209 Bioethics. Corequisite: NURS3300 Medical-Surgical Nursing I.

## NURS3310

5 Credits

Lecture 4 hours

### Psychiatric Nursing

Within the context of exploding knowledge, increasing client acuity and the increasing demand for professional accountability, this course focuses on the application of crucial theoretical and clinical issues essential to the practice of psychiatric-mental health nursing in the 21st century. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS3209 Bioethics. Corequisite: NURS3311 Psychiatric Nursing Laboratory.



**NURS3311****0 Credits****Laboratory 7 hours****Psychiatric Nursing Laboratory**

This nursing practicum provides students with opportunities to apply the nursing process in a psychiatric setting, educating clients and communities to help prevent or correct actual or potential health problems related to dysfunctional coping. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS3209 Bioethics. Corequisite: NURS3310 Psychiatric Nursing.

**NURS3320****5 Credits****Lecture 4 hours****Women's Health Nursing**

This course focuses on women's health and its impact on families. Students address the health-care needs of women throughout their life span, and nursing-care needs of the childbearing family, from conception through the puerperium. Among the topics covered are the reproductive years, women's interface with the health care system, health problems unique to women, health care issues that affect women and women's role within the family. Prerequisites: NURS3300 Medical-Surgical Nursing I, NURS3301 Medical-Surgical Nursing Laboratory I, NURS3310 Psychiatric Nursing and NURS3311 Psychiatric Nursing Laboratory. Corequisite: NURS3321 Women's Health Nursing Laboratory.

**NURS3321****0 Credits****Laboratory 7 hours****Women's Health Nursing Laboratory**

This nursing practicum provides students with opportunities to apply the nursing process to female clients and their families in a variety of health care settings. Prerequisites: NURS3300 Medical-Surgical Nursing I, NURS3301 Medical-Surgical Nursing Laboratory I and NURS3310 Psychiatric Nursing and NURS3311 Psychiatric Nursing Laboratory. Corequisite: NURS3320 Women's Health Nursing.

**NURS3340****5 Credits****Lecture 4 hours****Nursing Care of the Child and Family**

In this course, students analyze the nursing-care needs of the child from infancy to young adulthood within the context of a family. Emphasis is placed on the application of knowledge from the biological sciences, social sciences, humanities and nursing to clinical nursing practice. Prerequisites: NURS3300 Medical-Surgical Nursing I, NURS3301 Medical-Surgical Nursing Laboratory I and NURS3310 Psychiatric Nursing and NURS3311 Psychiatric Nursing Laboratory.

Corequisite: NURS3341 Nursing Care of the Child and Family Laboratory.

**NURS3341****0 Credits****Laboratory 7 hours****Nursing Care of the Child and Family Laboratory**

This practicum provides students with opportunities to apply the nursing process to pediatric clients in a variety of health-care settings. Prerequisites: NURS3300 Medical-Surgical Nursing I, NURS3301 Medical-Surgical Nursing Laboratory I, NURS3310 Psychiatric Nursing and NURS3311 Psychiatric Nursing Laboratory. Corequisite: NURS3340 Nursing Care of the Child and Family.

**NURS3345****3 Credits****End of Life**

The course will explore the role of the nurse in providing palliative care and improving the quality of life for patients and their families at the end of life. The basic principles of pain assessment and management at the end of life will be reviewed. Topics will also include symptom management, key ethical issues and legal concerns, culture, communication, grief/loss/bereavement and care at the actual time of death. The loss experiences of the nurse will also be examined. The course will follow the End of Life Nursing Education Consortium (ELNEC) curriculum. Students will be designated "ELNEC trained" at the completion of the course.

**NURS3352****3 Credits****Complementary Alternative Therapy**

This course provides an introduction to a variety of commonly practiced alternative modalities. Topics such as acupuncture, homeopathy and aromatherapy will be discussed and evaluated based upon current evidence-based research.

**NURS3353****2 Credits****Introduction to Normal and Therapeutic Nutrition**

This course will introduce nursing and allied health students to the fundamentals of human nutrition as well as the role of dietary intervention in the treatment and management of chronic and acute medical conditions.

**NURS3360****3 Credits****Intimate Violence**

This course will provide a multidisciplinary focus on victims and victimizers of intimate violence. Issues addressed will include child abuse, battering, rape, the witnessing of violence and the long-term effects of trauma.

**NURS3371****3 Credits****The Professional Nurse in the 21st Century**

As the first offering of the sequence for the RN student, this course serves as a bridge from the RN's prior education to the B.S.N. program. The focus of the course is to develop the professional self as the baccalaureate-prepared nurse in today's changing health care system; examine the evolving health care delivery system and the context in which delivery takes place; and explore the issues, opportunities and constraints the profession faces today and into the next century.

**NURS4410****5 Credits****Lecture 4 hours****Community Health Nursing**

This course emphasizes holistic care of clients in the community, considering families and individuals in a variety of settings, e.g., home, workplace, school and clinics. Prerequisites: NURS3320 Women's Health Nursing, NURS3321 Women's Health Nursing Laboratory, NURS3340 Nursing Care of the Child and Family and NURS3341 Nursing Care of the Child and Family Laboratory. Corequisite: NURS4411 Community Health Nursing Laboratory.

**NURS4411****0 Credits****Laboratory 7 hours****Community Health Nursing Laboratory**

This nursing practicum is designed to provide students with an opportunity to practice independently and interdependently in a community health agency and in client homes. Students also select and conduct a primary-prevention teaching project with a lay group in a community. Prerequisites: NURS3320 Women's Health Nursing, NURS3321 Women's Health Nursing Laboratory, NURS3340 Nursing Care of the Child and Family and NURS3341 Nursing Care of the Child and Family Laboratory. Corequisite: NURS4410 Community Health Nursing.

**NURS4420****3 Credits****Health Care Management**

An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisites: NURS3208 Introduction to Health Care Economics, NURS3320 Women's Health Nursing, NURS3321 Women's Health Nursing Laboratory, NURS3340 Nursing Care of the Child and Family and NURS3341 Nursing Care of the Child and Family Laboratory.

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## NURS4430

3 Credits

### Nursing Research

Students are introduced to the research process. The course focuses on the professional nurse as research consumer. Critical appraisal skills are developed as a basis for evaluating research findings for application to clinical practice. Learning activities are designed to facilitate the students' understanding of nursing research, the research-utilization process and professional-role development. Prerequisites: NURS3320 Women's Health Nursing, NURS3321 Women's Health Nursing Laboratory, NURS3340 Nursing Care of the Child and Family, NURS3341 Nursing Care of the Child and Family Laboratory and PSYC2201 Statistics or faculty permission.

## NURS4440

8 credits

Lecture 6 hours

### Medical-Surgical Nursing II

This capstone course focuses on illness-management strategies that integrate information from nursing, medicine, surgery and pharmacotherapeutics. Current therapies and interventions are explored. Prerequisites: NURS4410 Community Health Nursing, NURS4411 Community Health Nursing Laboratory, NURS4420 Health Care Management and NURS4430 Nursing Research. Corequisite: NURS4441 Medical-Surgical Nursing Laboratory II.

## NURS4441

0 credits

Laboratory 16 hours

### Medical-Surgical Nursing Laboratory II

This nursing practicum provides students with opportunities to apply the nursing process to multiple adults experiencing acute and/or chronic illness in a variety of health-care settings. The course includes synthesizing and applying leadership and management principles as a member of a health-care team to delivering nursing care to groups of patients. Prerequisites: NURS4410 Community Health Nursing, NURS4411 Community Health Nursing Laboratory, NURS4420 Health Care Management and NURS4430 Nursing Research. Corequisite: NURS4440 Medical-Surgical Nursing II.

## NURS4444

0-3 Credits

### Nursing Leadership Development

This course examines the leadership process and assists nursing students to develop as nursing leaders by participating in leadership development activities throughout the semester. Students will be encouraged to model leadership behaviors, communicate effectively with their peers and explore opportunities for nursing leadership within health-care organizations. This course will assist every student to develop a

better understanding of leadership techniques and principles and assist them to identify leadership strengths within themselves.

## NURS4460

1 Credit

### Preparation for Success

This course will focus on the application of critical-thinking skills to the comprehensive NCLEX-RN preparation program. Managing text anxiety and building confidence needed to pass the NCLEX-RN examination are an integral part of this course. Prerequisites: NURS4410 Community Health Nursing, NURS4411 Community Health Nursing Laboratory, NURS4420 Health Care Management and NURS4430 Nursing Research. Corequisites: NURS4440 Medical-Surgical Nursing II and NURS4441 Medical-Surgical Nursing Laboratory II.

*Fee*

## NURS4800

1-3 Credits

### Independent Study in Nursing

Independent study in nursing under the direction of a specific faculty member after consultation with the school director.

# Philosophy

## School of the Humanities

## PHIL1000

3 Credits

### The Life of the Mind

Do other people matter? What are the limits of toleration? Can we be citizens of the world? This inquiry-based introduction to the study of philosophy emphasizes the importance of critical thinking, moral reasoning and cross-cultural understanding for citizenship, professional life and scholarship across academic disciplines. Prerequisite: ENWR1001 Composition I: Rhetoric and Inquiry.  
*Fall, Spring*

## PHIL1101

3 Credits

### Introduction to Logic

Principles of correct reasoning for understanding, analyzing and criticizing a variety of deductive and inductive arguments. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL1103

3 Credits

### Ethics

Moral problems and theories. The good life and its goals: health, pleasure, divine approbation, obedience to natural law, utility. Moral concepts such as good, virtue and duty. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL1105

3 Credits

### World Religions in America

This course is an exploration of the changing multi-religious landscape of the United States, looking at the history and dynamic interaction of the various religious traditions that now compose the American religious scene, with special emphasis on the religious life of Buddhists, Hindus, Sikhs, Jains and Muslims. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to RELI1105 World Religions in America.)

## PHIL1110

3 Credits

### Philosophical Problems

Basic problems of philosophical thought: mind/body, nature of reality, nature of science, existence of God, right and wrong, aesthetic experience. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2000

3 Credits

### Logical Thinking

A course to sharpen logical thinking and persuasive argument through the study of deductive and inductive logic, common errors in reasoning (fallacies), problem-solving strategies and the critical analysis of reasoning in the law, science and politics. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2101

3 Credits

### Ancient and Medieval Philosophy

Central issues in the history of Western philosophy from the sixth century B.C. through the 13th century A.D. Philosophers to be studied include the pre-Socratics, Plato, Aristotle, the Stoics, Epicureans, Augustine, Anselm, Aquinas and others. Prerequisite: one course in philosophy or permission of instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2105

3 Credits

### Current Moral and Social Issues

This course explores some of the most urgent and divisive issues in contemporary global society, such as human rights, terrorism and torture, abortion and euthanasia, genetic engineering and cloning, the moral standing of animals and attitudes toward love and sexuality. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2202

3 Credits

### Modern Philosophy

Central issues in 17th- and 18th-century philosophy. Rationalism (Descartes, Spinoza and Leibniz). Empiricism (Hobbes, Locke, Berkeley

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and Hume). Kant. Prerequisite: one course in philosophy or permission of instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2203

3 Credits

### Contemporary Philosophy

Movements in 20th-century philosophy such as positivism, pragmatism, phenomenology, existentialism, logical analysis and ordinary language analysis studied through representative works. Prerequisite: one course in philosophy or permission of the instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2205

3 Credits

### Social and Political Philosophy

Plato's *Republic and Laws*. Aristotle's political realism. Thomas Aquinas and the theory of the natural law. Machiavelli's power politics. Social contract theories. Hobbes, Locke and Rousseau. Classic English liberalism. Hegel's historical idealism and Marx's historical materialism. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2206

3 Credits

### Aesthetics

Theories of art from Plato to Dewey. Psychological and social determinants of art. Genres of art. Aesthetic appreciation and criticism. Art's relation to society, morality and science. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2207

3 Credits

### Philosophy of Religion

God's existence and attributes, problem of evil, religious truth, religious views of history, myth and language systems, meaning in religion. (Equivalent to RELI2207 Philosophy of Religion.)

## PHIL2251

3 Credits

### Basic Jewish Thought

Study of major concepts in Judaism and their relationship to basic texts. Origins and nature of Jewish practice, including holiday observance. Overview of the thought of contemporary American denominations. Study of major ideas in Zionist thought. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2252

3 Credits

### Judaism and Modernity

Jewish life and thought, self-understanding and survival from the 17th century, enlightenment and emancipation of the Jews of Europe to the

present day. The development of Zionism, secularism and Yiddishism, the European Shtetl, the emigration experience and the formation of American Judaism, Orthodox, Conservative, Reform and Reconstructionist; reactions to the Holocaust; ideologies of the state of Israel, the resurgence of the kabbalah and Judaic approaches to medical ethics. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2253

3 Credits

### The Search for Meaning: Religious Responses

Examination of the religious thought of two Jewish and two Christian 20th-century figures. Through an analysis of the writings of Elie Wiesel, Abraham Heschel, Dorothy Day and Dietrich Bonhoeffer, the student will explore structures of religious experience in two monotheistic traditions. Special attention will be paid to the roles of religious ways of knowing in the formation of social and political philosophies. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2253 The Search for Meaning: Religious Responses.)

## PHIL2254

3 Credits

### War and Peace in Christianity, Judaism and Islam

Survey of key aspects of the thought and practice of the three major monotheistic traditions with regard to issues surrounding war and peace. Both scriptural writings and the writings of contemporary religious thinkers will be analyzed. Selected interreligious conflicts in the contemporary period will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2254 War and Peace in Christianity, Judaism and Islam.)

## PHIL2256

3 Credits

### Fundamentalism in Religious Practice

This course examines the history and philosophy behind fundamentalism and extremes in various sects of Judaism, Christianity and Islam. Students will explore both ancient examples and modern trends in each of the religion's faiths, including Hasidism, Haredi movements in Israel, Jihad, terrorism, missionaries and evangelical movements. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2262

3 Credits

### History of Jewish People I

This course will examine the history of the Jewish people from the destruction of the second temple in 70 C.E. through the expulsion of the Jews from Spain in 1492. Topics will include the development of Jewish literature,

Maimoedes, Jewish mysticism, Judaism and Christianity, Judaism and Islam. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2321

3 Credits

### African Philosophy

Readings in and discussion of traditional and oral (e.g., sagacity), colonial (e.g., negritude) and postcolonial thought from Africa and about Africa with an emphasis on the contemporary. Consideration of a variety of philosophical subjects but especially aesthetics and sociopolitical thought. Exploration of the quandaries raised about the meaning of "African" and of "philosophy." Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL2439

3 Credits

### Radical Political Thought

This course explores major currents of political radicalism both within and outside of the dominant Western political tradition. Topics considered include antidemocratic radicalism, democratic radicalism, Marxian radicalism, radical feminism, radical individualism and post-colonial radicalism. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2439 Radical Political Thought.)

## PHIL2440

3 Credits

### Human Rights

The course examines several major themes and problems in contemporary human rights, including the meaning of human rights, its origins, philosophical justifications and its enabling documents. It also will discuss current philosophical debates arising from cultural relativism, religious claims and the assertion of group rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2440 Human Rights.)

## PHIL2443

3 Credits

### African-American Political Thought

This course explores the contributions of African-American political thinkers to the development of American political thought in general, considers the tensions and conflicts within African-American political thought and explores the significance of these thinkers to the understanding of contemporary race relations. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2443 African-American Political Thought.)

## PHIL2444

3 Credits

### Technology and Its Critics

Modern technologies have aroused both intense admiration and violent opposition. This course

# Philosophy

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will provide an analysis of some of the issues raised by critics of modern technology such as Aldous Huxley, Lewis Mumford and Neil Postman. *This course meets exclusively online. FDU NetID (formerly Webmail) account required.* Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2444 Technology and Its Critics.)

## PHIL2445

3 Credits

### Democracy in America

This course explores the theory and practice of American democracy from the 19th century to the present day through a mixture of philosophical, historical, literary and social scientific readings and a variety of documentary and Hollywood films. Questions include: What are the theoretical foundations of American democracy? How does the practice of democracy in America deviate from these foundations? How has American democracy evolved? Why do so many Americans appear to hate politics? How should democratic citizens be educated? Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2445 Democracy in America.)

## PHIL2446

3 Credits

### Religion and Human Rights

This course will survey contemporary issues in the relationship between religion and human rights. Among the topics examined will be the values in various religious traditions, in particular Hinduism, Judaism, Christianity and Islam, which may underlie the protection of human rights. The course will also look at the persecution of religious minorities in today's world, the role of religion in suppressing human rights and how religion has served, in various instances, to champion human rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2446 Religion and Human Rights.)

## PHIL2448

3 Credits

### Comparative Religions

A study of the great religions of the world, with emphasis on how they affect events in the world today. The course explores components and meanings of Hinduism, Buddhism, Confucianism, Taoism, the theistic Western religions (Judaism, Christianity, Islam) and some less common religions. Subjects to be covered include religious ideas and institutions, cosmologies, systems of meaning and salvation. Extensive material on the web will be assigned. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2448 Comparative Religions.)

## PHIL2450

3 Credits

### History and Methods of Science

An interdisciplinary survey of the history of Western science from its roots in the ancient Greek natural philosophy up to the present time. Although the course will cover topics in the philosophy and history of all the sciences, emphasis will be placed on methodological developments. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2450 History and Methods of Science.)

## PHIL2452

3 Credits

### Ancient Political Thought

This course examines some of the foundational, political and social ideas of Western and Eastern civilization in historical context and comparative perspective. Topics include the origins of democracy, the degeneration of the ancient polity and the rebirth of the ancient conception of politics during the Renaissance. Readings encompass history, philosophy and literature, including selections from Confucius, Thucydides, Plato, Aristotle, Aristophanes, Cicero, Livy and Machiavelli. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2452 Ancient Political Thought.)

## PHIL2545

3 Credits

### The American Mind

This course explores some of the main sources of American social and political thought from the 18th century to the present, with particular emphasis on the relationship between democratic and individualistic principles. It also will investigate other major themes and problems in American social and political thought, including federalism, individualism, democracy, citizenship, American nationalism, etc. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2545 The American Mind.)

## PHIL3500

3 Credits

### Business Ethics

Primarily designed for the major in business, with emphasis on ethical problems confronting today's personnel in the marketplace. A brief history of the moralities underlying business; techniques in solving ethical dilemmas; some theory of the relation between self-interest and community concerns. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3501

3 Credits

### Philosophy of Science

Theories of scientific meaning, deductive proof theory, formal systems, causal explanation,

probability theory. Theory of evidence and concept formation in the natural sciences.

Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3502

3 Credits

### Symbolic Logic

Sentential and predicate logics: syntax, semantics and metalogic. Undecidability and incompleteness theorems for arithmetic. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3507

3 Credits

### Slavery and Global Ethics

This course will analyze 17th- and 18th-century fictional and nonfictional representations of race and enslavement in tandem with the rise of Enlightenment political and ethical philosophy. Students will read texts by authors from North and South America, Europe and West Africa, each predicting economic and ethical consequences of the rise of the global economy. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3507 Slavery and Global Ethics.)

## PHIL3510

3 Credits

### Human Perspectives in a Computerized Society

An examination of the ethical, social and economic implications of computer technology as it challenges traditional values and man's image of himself. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3511

3 Credits

### The Ethics of Food

This course examines the ethical dimensions of food production and consumption and explores contemporary food issues including vegetarianism, animal rights, global food security and sustainability, poverty and hunger, the industrialization of food production, biotechnology and genetic engineering. Students will apply ethical theories to cases on food ethics. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3516

3 Credits

### Plato

Lecture and seminar in Plato's *Dialogues* designed to train the student in interpretation of Platonic texts and in metaphysical argumentation. Emphasis on metaphysics, theory of knowledge and philosophy of mind and their relations to ethics, politics and speculative psychology. For upper-division students only. Prerequisite: ENWR1002 Composition II: Research and Argument.

# Physical Education

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## PHIL3317

3 Credits

### Theory of Knowledge

Nature, extent and forms of human knowledge. The roles of sense-perception and reason. The nature of truth and reality. Examination of various forms of skepticism. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3318

3 Credits

### Existentialism

Introduction to the study of human consciousness through the philosophical and literary works of existential thinkers such as Kierkegaard, Nietzsche, Heidegger, Jaspers, Marcel, Camus, Sartre, Merleau-Ponty and Tillich. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL3319

3 Credits

### The Holocaust: Philosophical Issues

A study of the Holocaust through the use of philosophical and religious essays, historical accounts, memoirs, novels, short stories and plays. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3319 The Holocaust: Philosophical Issues.)

## PHIL4310

3 Credits

### Modern Political Thought

This course introduces students to recurring themes and major problems of modern political and social thought. These include the nature and significance of politics, the meaning of freedom, the value of citizenship, the nature of legitimate authority, the connection between religion and politics, the nature of individual rights, the distinction between nationalism and patriotism and the connection between economic and political life. Particular emphasis will be given to the retrieval of classical political ideas by modern thinkers and the development of distinctly modern political ideas. The course is organized more or less chronologically so these themes can be examined historically as well as theoretically. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4310 Modern Political Thought.)

## PHIL4431

1–3 Credits Each Semester

### Selected Studies in Philosophy

Studies in an area of philosophy not offered regularly. Descriptions of these courses can be obtained at the School of the Humanities office. Prerequisite: ENWR1002 Composition II: Research and Argument.

## PHIL4432

3 Credits

### Gandhi: His Life, Philosophy and Legacy

An examination of Gandhi's life and work as the leader of India's freedom movement. A critical evaluation of his philosophy and techniques of nonviolent protest, as well as his impact on leaders such as Martin Luther King, Jr., Nelson Mandela and others. The relevance of Gandhi's ideas in the contemporary world will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4432 Gandhi: His Life, Philosophy and Legacy.)

## PHIL4438

3 Credits

### Ethics and Public Affairs

Does morality matter for politics? Or is power the only thing that really counts? This course explores the nature and validity of arguments for contemporary public policy issues such as abortion, capital punishment, racial profiling and the rules of war. *FDU NetID (formerly Webmail) account required.* Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4438 Ethics and Public Affairs.)

## PHIL4439

3 Credits

### Questioning Religion

Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions and in people's own lives. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4439 Questioning Religion and RELI4439 Questioning Religion.)

## PHIL4800

1–3 Credits Each Semester

### Independent Study in Philosophy

Independent study under the direction of a specific faculty member after consultation with the school director.

# Physical Education

Department of Physical Education

## PHED1125

1 Credit

### Karate

Koekian Karate, the art of empty-hand defense. Exercise for the development of firm, flexible muscles, weight control and overall coordination. Instructors are members of the All Japan Karate-Do Federation and the Amateur Athletic Union (A.A.U.).

Fall

## PHED1133

1 Credit

### Personal Fitness

Basic knowledge of exercise and diet in relation to weight control and development of various areas of the body. Games, jogging and universal gym facility used to develop fitness levels.

Spring

## PHED1157

1 Credit

### Yoga

Hatha Yoga as a means of achieving a healthy body and inner tranquillity. The understanding and practice of relaxation, controlled breathing techniques and yoga postures (asanas).

Fall, Spring

## PHED1167

1 Credit

### Weight Training

Use of nautilus machines and dumbbells for strengthening and toning major muscle groups.

Fall

## PHED1180

1 Credit

### Stress Management

Students will identify the sources and symptoms of stress in their lives and be responsible for developing their own personalized stress-management programs. Topics covered include exercise, nutrition, time management, relaxation techniques and assertiveness. Students will utilize the resources available in the Wellness Center Stress Lab to help them identify and achieve health-enhancing lifestyle goals.

Fall

## PHED1422

1 Credit

### Current Topics in Nutrition

This course will cover principles of applied nutrition as well as explore currently "hot" topics related to nutrition and health. Topics to be covered include, but are not limited to the following: role of macro/micronutrients, including proteins, carbohydrates, fat, vitamins and mineral water; nutrition for optimal physical and mental performance; weight control: myth vs. reality; and nutritional supplements and assessment of the validity of health and nutrition information.

Fall

## PHED2422

3 Credits

### Health and Nutrition

The importance of well-being as it relates to nutrition and health. The course will go into detail on topics of the body's major fuel sources and how exercise contributes to the healthy person. This class will include lecture and laboratories.

Spring

# Physics • Political Science

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## PHED4436

2 Credits

### CPR and Emergency First Aid

This course teaches the student the knowledge and practical skills needed to respond to various emergency situations: burns, wounds, respiratory and cardiac problems, broken bones, poisoning, etc. Certification upon successful completion of course.

## PHED4800

1–3 Credits

### Independent Study in Physical Education

Independent work on a specific problem relating to a lifetime sport, dance or physical skill. The problem, activity and solution must be approved by the coordinator. Prerequisites: completion of a beginning-level course and/or permission of the coordinator.

Fall, Spring

## Physics

### School of Natural Sciences

## PHYS114

3 Credits

### Lecture 2 hours; Laboratory 2 hours Physics for Radiography

After a brief discussion of concepts from mechanics and thermodynamics needed in radiography, the course will focus on electromagnetism, atomic structure, ionizing radiation, electric circuits, the x-ray tube, etc.

## PHYS1125, PHYS1025

3 Credits

### Lecture 2 hours; Laboratory 2 hours Astronomy

Orbital motion, telescopes, stellar astronomy, celestial coordinates, the solar system and its evolution, types of stars, galaxies and the universe. Prerequisites: elementary algebra and geometry.

Fee

## PHYS1126, PHYS1026

3 Credits

### Lecture 2 hours; Laboratory 2 hours Earth Physics

A laboratory science elective intended for liberal arts students, life science and non-science majors. Can be taken before or after PHYS1125, PHYS1025 Astronomy or GEOL1101, GEOL1111 Introductory Geology\*. A topical treatment, not highly mathematical. The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants.

## PHYS2101

3 Credits

### Lecture 3 hours

### General Physics I

The first semester of a survey of physics: mechanics, heat, sound, optics. A quantitative, noncalculus treatment. For engineering technology students only. Prerequisites: intermediate algebra and trigonometry. Corequisite: PHYS2201 Physics Laboratory I.

## PHYS2102

3 Credits

### Lecture 3 hours

### General Physics II

The second semester of a survey of physics: electricity, magnetism, waves, light, modern physics. A quantitative noncalculus treatment. For engineering technology students only. Not for science majors. Prerequisite: a grade of C- or better in PHYS2101 General Physics I. Corequisite: PHYS2202 Physics Laboratory II.

## PHYS2201

1 Credit

### Laboratory 3 hours

### Physics Laboratory I

Experiments from mechanics, heat, sound and fluids. Measurement and data analysis. Corequisite: PHYS2101 General Physics I or PHYS2203 University Physics I.

Fall

Fee

## PHYS2202

1 Credit

### Laboratory 3 hours

### Physics Laboratory II

Experiments from electricity, magnetism, circuits, waves, optics, light, modern physics. Measurement and data analysis. Corequisite: PHYS2102 General Physics II or PHYS2204 University Physics II.

Spring

Fee

## PHYS2203

3 Credits

### Laboratory 4 hours

### University Physics I

The first half of a two-semester, calculus-based physics course for science and engineering majors. Topics normally covered include: units and dimensions, forces and motion in one and two dimensions, vectors, momentum and center of mass, work, kinetic energy and the work-energy theorem, potential energy and the conservation of energy, rotation and moment of inertia, torque and angular momentum, gravitation, oscillations, elasticity, fluids, kinetic theory of gases, thermodynamics. Corequisite: MATH1201 Calculus I and PHYS2201 Physics Laboratory I.

## PHYS2204

3 Credits

### Lecture 4 hours

### University Physics II

The second half of a two-semester, calculus-based physics course. Topics normally covered include: waves and sound, geometrical and physical optics, electrical forces and fields, electric potential, current and resistance, circuits, capacitance, magnetic forces and fields, force on a moving charge, magnetic field of a current, electromagnetic induction, electromagnetic oscillations and waves, alternating currents, special relativity, quantization and modern physics. Prerequisite: a grade of C- or higher in PHYS2203 University Physics I. Corequisite: PHYS2202 Physics Laboratory II.

## PHYS3205

3 Credits

### Lecture 3 hours

### Modern Physics

The optional third semester of a calculus-based physics sequence for science and engineering majors. Topics normally include special relativity, end of classical physics, photons and quantization, wave functions and uncertainty, one-dimensional quantum mechanics, atomic physics, nuclear physics and elementary particles. Prerequisites: MATH2202 Calculus II and PHYS2204 University Physics II.

## PHYS4430

1–3 Credits Each Semester

### Selected Studies in Physics

Studies in special areas of current interest to physics.

## PHYS4800

1–3 Credits Each Semester

### Independent Study in Physics

Independent study under the direction of a specific faculty member with approval of the school director.

## Political Science

### School of Criminal Justice, Political Science and International Studies

## POLS1101

3 Credits

### Introduction to Political Science

The basic concepts of the discipline, its schools of thought, its subfields and terminologies.

## POLS1102

3 Credits

### Geography and World Issues

This course investigates the linkage among geographical factors, political process and economic systems. This class will focus on that relationship as it impacts the political, economic and human environment of this diverse geopolitical world.

\*Open to Vancouver Campus students only.

# Political Science

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## POLS2010

3 Credits

### **Nationalism and Ethnic Violence**

This course provides students with a broad overview of the major theories of nationalism, paying particular attention to ethnic violence and conflict. Emphasis is on the critical evaluation of different theories of both nationalism and ethnic conflict, with case studies illustrating the competing theories.

## POLS2204

3 Credits

### **International Relations**

The state system and the basic principles regulating international relations; power and use and threat of force; nationalism, imperialism; diplomacy, the transnational economy, international law and organization.

## POLS2205

3 Credits

### **Comparative Legal Systems**

Comparisons and contrasts of the Anglo-American and major European legal traditions.

## POLS2206

3 Credits

### **American Minority Politics**

The course will examine the goals and political strategies of women, blacks and Hispanics. It will consider the influence of political participation (voting and protests) and office holding (appointed and elected) on public policies which benefit specific minorities. The course will focus on minority politics from the 1960s to today.

## POLS2211

3 Credits

### **International Organization**

Origin and development of international organizations: the League of Nations, United Nations, regional organizations.

## POLS2212

3 Credits

### **International Law**

Development and principles of international law, nature of diplomatic relationship, international agreements, jurisdiction over persons and property, tariff and shipping relations, arbitration of disputes; operations of international institutions.

## POLS2219

3 Credits

### **Global Scholars Seminar in Political Studies**

Should global interests precede national interests? What goals should states pursue? Are states obsolete? Will soft power compete with military power? Is the clash of civilizations prediction or unfolding of reality? The competency measure of the seminar is a field experience that examines the impact of perception on political and social construction of images in the 21st century.

## POLS2251

3 Credits

### **Comparative Government and Politics**

Comparison of the development and functions of governmental institutions of selected modern political systems.

## POLS2252

3 Credits

### **Political Thought and Theory**

Evolution of political ideas and institutions from antiquity to modern times, and their interrelationship with the societal environment.

## POLS2254

3 Credits

### **Political Geography**

Concepts basic to political geography. Elements of state/geographical characteristics: core, domain, boundaries, pressure points, location, climate, raw materials. Relation of political organization to people and culture. Nature and limitations of sovereignty.

## POLS2251

3 Credits

### **Foreign Policy of the United States**

Constitutional and political factors that determine the formulation, execution and substance of American foreign policy.

## POLS2255

3 Credits

### **American Government**

Federalism, with emphasis on the national government, politics and the relation of the individual to the central government.

## POLS2254

3 Credits

### **Public Policy**

This course is issue-oriented and focuses on substantive issues of public policy that significantly affect the life of every American.

## POLS2606

3 Credits

### **Ethics and Politics**

This course is concerned with ethical issues in modern politics, both national and global. Ethical questions and dilemmas such as the use of violence, government secrecy, deception, civil disobedience, public good, corruption, ethics, activist politics and justice are among the possible topics for discussion.

## POLS3010

3 Credits

### **Nationalism and the Modern State**

Focuses on the nature, causes and consequences of national identity as a collective phenomenon and the manifestation of nationalism as a form of politics.

## POLS3011

3 Credits

### **Human Rights in Global Environment**

Introduction to the developing systems, laws and norms for the promotion and protection of human rights in the world today. Understanding legal, political and economic aspects of human rights. The course will discuss ideological and cultural perspectives, sources of violations, women's rights and the role of nongovernmental organizations.

## POLS3201

3 Credits

### **Developing a Sustainability Mindset in a Globalized World**

Developing a sustainability mindset through project-based action exercises utilizing the United Nations Sustainable Development Goals (UNSDG) platform. The course will introduce three perspectives of sustainability mindset: systems perspective, innovative thinking and being orientation. Students will select one UNSDG and develop a project-based plan of action to achieve specific targets to make a difference in a globalized world.

## POLS3202

3 Credits

### **United Nations: Institutions and Global Governance**

The course provides students with an in-depth understanding of the United Nations core institutions and policies, engagements in problem solving and challenges in international civil order and global governance in historical and contemporary contexts. The course has two components: it combines class lecture and discussion, individual research and group work, with participatory weekly onsite visits to the United Nations.

## POLS3311

3 Credits

### **The American Presidency**

The role of great presidents in the expansion of presidential power.

## POLS3312

3 Credits

### **The American Congress**

The organization and procedures of Congress.

## POLS3313

3 Credits

### **Problems in International Politics**

Identification and analysis of significant current problems in the international arena.

## POLS3324

3 Credits

### **American Minority Groups**

The major American racial, ethnic and religious groups, their historical development, adjustment, assimilation, contemporary problems and trends.

# Political Science

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**POLS3327**

**3 Credits**

**Civil Rights and Liberties**

The development and present status of rights and liberties in religion, politics, association, speech, the press and assembly, the rights of minorities and women.

**POLS3331**

**3 Credits**

**American Political Thought**

The main theme of this course will be the American dream, versions of which permeate American political thought. To capture something of the richness and diversity of American political thought with reference to this theme, short selections representative of major American political and social movements, including the abolitionist movement, the women's rights movement, etc. will be read. The course is organized roughly chronologically, so themes and movements may be examined historically as well as conceptually.

**POLS3334**

**3 Credits**

**The Soviet Union and Russia**

The events and results that ended the rule of the superpower. The current role of Russia in international affairs.

**POLS3338**

**3 Credits**

**India and Its Neighbors**

Survey of institutional structures of, and relations among, the South Asian countries including: India, Pakistan, Nepal, Bhutan, Bangladesh and Myanmar.

**POLS3345**

**3 Credits**

**Modern Ideologies**

Ideologies of modern times including Liberalism, Nationalism, Democratic Socialism, Marxism and Nazism, and the new ideologies of the Third World.

**POLS3349**

**3 Credits**

**African-American Politics**

Discusses the impact of the African-American voter on U.S. politics since the Reconstruction period. Emphasizes the modern period and the growth of political organizations.

**POLS3352**

**3 Credits**

**Government and Politics of the Third World**

Patterns of political development of selected nations of the Third World.

**POLS3354**

**3 Credits**

**Political Parties and Pressure Groups**

Organization and operation of political parties in the United States.

**POLS3355**

**3 Credits**

**American Constitutional Law I**

Basic issues and cases in American constitutional law, with emphasis on the role of the Supreme Court; political and theoretical contributions of the Court to American development.

**POLS3356**

**3 Credits**

**American Constitutional Law II**

Basic issues and cases in American constitutional law, with emphasis on the Supreme Court and current decisions.

**POLS3361**

**3 Credits**

**Politics of East Asia I**

Historical and political development of East Asia, with emphasis on China and Korea.

**POLS3362**

**3 Credits**

**Politics of East Asia II**

The history and political development of East Asia, with emphasis on Japan, Indochina and Indonesia.

**POLS3363**

**3 Credits**

**Middle East Politics**

Political, social and economic development of Middle Eastern states.

**POLS3364**

**3 Credits**

**Middle East in World Affairs**

The Middle East's political and economic impact on the international environment.

**POLS3365**

**3 Credits**

**Latin America in World Affairs I**

Colonial and early national periods of the selected nations of the Caribbean, Central and South America with emphasis on political development (1700–1900).

**POLS3366**

**3 Credits**

**Latin America in World Affairs II**

The recent history and policies of selected Latin-American nations with emphasis on current U.S. relations (1900–present).

**POLS3367**

**3 Credits**

**Africa in World Affairs I**

Early African civilizations and examination of the history of major regions of Africa since

World War II. Selected problem areas affecting Africa's relations with the U.S. and the world.

**POLS3368**

**3 Credits**

**Africa in World Affairs II**

Examination of the development of major regions of Africa since World War II. Selected problem areas affecting Africa's relations with the U.S. and the world.

**POLS3501**

**3 Credits**

**Globalization and World Citizenship**

This course examines the impact of globalization and the case for world citizenship. Students will study the elements of globalization and the evolving networks that transcend the nation-state. They also will explore the foundation for world citizenship and the potential rights, responsibilities and opportunities belonging to world citizens.

**POLS3502**

**3 Credits**

**Politics and the Global Economy**

Studies the relationship between political events and economic actions on the international economy.

**POLS4320**

**3 Credits**

**Women's America**

This course focuses on the role of women in the American political system from colonial times to the present. It focuses on their participation, nonparticipation and successes over the years. Political analysis will be the prime methodology.

**POLS4341**

**3 Credits**

**Political Leadership and Changing International Order**

A comparative study of contemporary political leadership using the state-civil society dichotomy as the framework. The competency measure is a travel-abroad field experience.

**POLS4430**

**1–3 Credits Each Semester**

**Selected Studies in Political Science**

Studies in an area of political science for which no formal course is offered.

**POLS4431**

**3 Credits**

**Politics of the Environment**

The course analyzes the roles of national and international governments, groups and social movements on environmental issues and policies. Moral and ethical issues as well as interpreting "facts" will be discussed.



# Psychology

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**POLS4460**

**3 Credits**

### **New Europe**

The study of the state system in Europe and its Europeanization in transitional cooperation and integration. The impact of global and regional issues of conflict.

**POLS4462**

**3 Credits**

### **Terrorism and Political Violence**

This course will examine the overall scope of contemporary terrorism and political violence. It will study the causes and impact of terrorism on contemporary politics. It will also examine the changing political landscape after September 11, 2001.

**POLS4465**

**3 Credits**

### **Political and Economic Challenges in Africa**

This course examines contemporary issues in Africa. Emphasizing trends in political and economic developments, the focus will include, among others, an examination of human-rights trends across the continent, the impact of globalization, environmental issues, sustainable development, conflict resolution and health issues.

**POLS4511**

**3 Credits**

### **U.N. and Human Security**

Analysis of the United Nation's approach, involvement, success and failures in the arena of human security.

**POLS4600**

**3 Credits**

### **Political Science Seminar**

To research and write a culminating project that reflects the students' knowledge and understanding of the discipline.

**POLS4800**

**1–3 Credits Each Semester**

### **Independent Study in Political Science**

Independent study under the direction of a specific faculty member after consultation with the school director. Limited to a total of 6 credits.

**POLS4875**

**Variable Credits**

### **Honors in Political Science**

Independent study in political science for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

## Psychology

### *School of Psychology*

**PSYC1103**

**3 Credits**

### **General Psychology**

A survey of topics including, but not limited to, research methods, brain and behavior, motivation, consciousness, development, sensation and perception, learning, memory and cognition, emotions, personality, social psychology and psychological disorders.

**PSYC1125**

**3 Credits**

### **Introduction to Social Service Advocacy**

This course introduces students to the fundamental concepts and theories of social service advocacy and social work and explores the practical implication of these on organizations, communities, groups, families and individuals (the client). The course is centered on three major components of social-work practice: 1) inequality and social justice, 2) social welfare policy and 3) social practice methods. The course will also explore human behavior and development as well as needs and services within the legal and organizational context of the discipline. (Equivalent to CRIM1125 Introduction to Social Service Advocacy.)

**PSYC2126**

**3 Credits**

### **The Interview**

Interviewing principles and techniques, with emphasis on the information-gathering interview used in educational, industrial and clinical settings. Recommended for students in education, personnel management, psychology and social work. Prerequisite: PSYC1103 General Psychology.

**PSYC2201**

**3 Credits**

### **Statistics**

Statistical concepts and procedures, with emphasis on descriptive statistics and an introduction to inferential statistics. Relevance to behavioral sciences.

**PSYC2204**

**3 Credits**

### **Child Development**

Growth and development of children in terms of sensorimotor, intellectual and social behavior. Scientific findings and theoretical viewpoints presented with implications concerning the child for the family, school and community. Prerequisite: PSYC1103 General Psychology.

**PSYC2234**

**3 Credits**

### **Social Psychology**

Representative theories and selected problems concerning determinants of social behavior. Socialization, attitude structure and change, social norms, prejudice, leadership and group dynamics. Prerequisite: PSYC1103 General Psychology.

**PSYC2235**

**3 Credits**

### **Positive Psychology**

Introduction to the scientific basis and principles of positive psychology. Exploration of how the field of positive psychology offers the possibility of prevention of serious mental illness. Courage, optimism, interpersonal skill, work ethic, hope, responsibility, future-mindedness, honesty and perseverance are all examined, as are the practice of civic virtue and the pursuit of the best things in life.

**PSYC5100**

**3 Credits**

### **Psychology of Belief**

This class looks at why people believe what they believe. The course will touch on a wide range of supernatural or unexplainable phenomena such as magic, ghosts, astrology, psychic abilities, parapsychology and religious belief. It will examine different types of belief and what causes a person to believe. This highly interactive class emphasizes critical thinking and skeptical inquiry.

**PSYC5202**

**3 Credits**

### **Experimental Psychology**

Introduction to methods of scientific experimentation in psychology by means of laboratory experiments, studies of problems in the design of experiments and the analysis of data as reported in the experimental literature. Reports of experiments will be required. Prerequisite: PSYC2201 Statistics.

*Fee*

**PSYC5301**

**3 Credits**

### **Drugs and Behavior**

Therapeutic and recreational use of psychoactive drugs, including alcohol, nicotine and caffeine. Emphasis on modes of action, behavioral effects and psychological aspects of tolerance and dependence.

**PSYC5304**

**3 Credits**

### **Psychometrics**

Theory and practice of psychological testing and basic principles of psychometrics, including a critical survey of representative tests of aptitude, ability, interest, attitudes and personality.

# Psychology

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## PSYC3305

3 Credits

### Adolescent Growth and Development

Factors contributing to adolescent mental health, behavior and adjustment are covered. Developmental characteristics, the impact of culture as well as intra- and interpersonal issues are integrated into the understanding of adolescent functioning. Risk factors particularly associated with juvenile delinquency and conduct disorder are emphasized, examining etiology, prevention and treatment. Prerequisite: PSYC1103 General Psychology.

## PSYC3306

3 Credits

### Psychology of Aging

The geriatric years, with emphasis on causes of aging, personality, sexuality, sensation and perception, psychopathology, intelligence and memory. Prerequisite: PSYC1103 General Psychology.

## PSYC3307

3 Credits

### Human Sexuality

Application and discussion of psychological and biological issues related to sexual anatomy, physiology of the sexual response, sexually transmitted diseases, homosexual and bisexual patterns, unconventional sexual behavior and sexual coercion and exploitation. Application of human sexuality issues to the law and legal issues will be covered with particular emphasis on the psychology of the sex offender.

## PSYC3308

3 Credits

### Educational Psychology

Application of psychological theory to formal and informal practices, with emphasis on the role of the person guiding someone else's learning. Theories and principles of learning, motivation, measurement of behavior and emotional adjustment. Prerequisite: PSYC1103 General Psychology.

## PSYC3311

3 Credits

### Psychology of Love and Interpersonal Relations

Psychological aspects of the role of love and attachment in human relationships. Topics addressed include phenomenology and historical evolution of love styles, the function of love, attraction and initiation of love relationships and marriage.

## PSYC3315

3 Credits

### Abnormal Psychology

Science of psychopathology. Descriptive study of syndromes and etiology of the major behavior disorders, anxiety-related disorders, stress-based disorders, sociopathies and mental deficiencies. Prerequisite: PSYC1103 General Psychology.

## PSYC3317

3 Credits

### Psychology and the Law

Application of psychological principles to legal problems. Analysis and implications of court decisions. Current controversies: insanity defense, jury selection, persuasive techniques, sentencing, competency, use of hypnosis, capital punishment, psychological testing. Conducting forensic interviews will be incorporated.

## PSYC3319

3 Credits

### The World of the Psychopath

This course will provide students with a broad overview on psychopathy focusing on key elements of this "condition" and dismissing myths associated with it.

## PSYC3325

3 Credits

### Psychology of Women

Various theories of the psychology of women contrasted with recent research findings about sex differences.

## PSYC3330

3 Credits

### Health Psychology

Examination of psychological factors that affect how people stay healthy and how and why they become ill. Specific topics to be addressed include the mind-body relationship, stress and coping, pain, cardiovascular disorders, psychoimmunology, eating disorders and substance abuse. Prerequisite: PSYC1103 General Psychology.

## PSYC3332

3 Credits

### The Psychology of Religion

Influence of religion on personality and behavior. Religious beliefs, feelings, effects, self-actualization and neurosis.

## PSYC3338

3 Credits

### Cognitive Processes

This course will present in-depth treatments of many topics in cognitive psychology, with some attention paid to cognitive neuroscience. Each day, a person performs a number of cognitive tasks, such as remembering how to get to school, recognizing a friend's face in a crowd, deciding where to eat lunch and what to eat and deciding when to go to sleep at night. In this course, students will begin by exploring lower-level processes (e.g. perception) and proceed to higher-level processes (e.g. reasoning). Prerequisite: PSYC1103 General Psychology.

## PSYC3339

3 Credits

### Psychology of Prejudice and Intergroup Relations

This course examines classic (e.g. the Authoritarian Personality) and contemporary (e.g. Implicit Bias) understandings of prejudice and its relationship to intergroup relations, stereotyping and discrimination. The course will also include discussion of social psychological interventions aimed at reducing prejudice, as well as the policy implications of such interventions. Prerequisite: PSYC1103 General Psychology.

## PSYC3359

3 Credits

### Sport Psychology

An introduction to the role of psychology in sports. Major issues addressed include the scientific basis of sport psychology, arousal/anxiety and clinical interventions, cognitive processes in sport behavior, aggression and group performance and coaching behavior.

## PSYC3365

3 Credits

### Psychology of Creativity

The aim of this course is to demystify the process of creative thinking, survey the major theories of creativity and explore the lives of several highly creative individuals using the case-study method. Creative achievements in the arts and sciences will be reviewed as well as innovations in industry.

## PSYC3370

3 Credits

### Psychology of Men

The psychological development of men, gender-role conflict, men's health, men in families, roles and identities, sexual orientation, the men's movement, ethnocultural factors and alexithymia. Incorporation of theory and empirical evidence.

## PSYC3381

3-4 Credits

### Field Placement

Supervised experience in community agencies for a minimum of 60 hours, plus a weekly one-and-a-half-hour seminar. Integration of psychological theory and practical applications. Recommended for juniors and seniors. Admission by permission of the instructor. Prerequisite: PSYC1103 General Psychology.

## PSYC3384

3 Credits

### Theories of Personality

Major approaches to personality theory, with emphasis on empirical studies in context of the various theories. Prerequisite: PSYC1103 General Psychology.

# Psychology

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## PSYC3393

3 Credits

### Child Behavior Disorders

Etiological and developmental aspects of abnormal behavior in children; biological, cultural and psychological influences of a wide range of childhood behavior disorders (e.g., schizophrenia, autism, mental retardation, anxiety disorders). Prerequisite: PSYC3315 Abnormal Psychology.

## PSYC3394

3 Credits

### Disorders of Addiction

Disorders of addiction such as alcohol and other drug abuse, smoking, eating and compulsive gambling are discussed in depth. Emphasis is placed on theory, epidemiology, symptomatology, course, assessment and treatment. Prerequisite: PSYC3315 Abnormal Psychology.

## PSYC3421

3 Credits

### Psychology of Criminal Behavior

The psychological bases and dynamics of criminal behavior. Use of cases from the forensic psychology literature to illustrate various theoretical and explanatory aspects of criminal behavior. Emphasis on the relationships between various psychopathological conditions, personality disorders and criminal and antisocial behavior. Prerequisite: PSYC3315 Abnormal Psychology.

## PSYC3800

1–3 Credits Each Semester

### Junior Independent Study in Psychology

Independent study under the direction of a specific faculty member after consultation with the school director.

## PSYC3900

3 Credits

### Psychology of Emerging Adulthood

Emerging adulthood or those years between adolescence and adulthood are important to the development of a productive adult life. Normative and non-normative issues, clinical implications as well as prevention strategies and evidence-based early interventions are discussed. Prerequisites: PSYC1103 General Psychology and PSYC2204 Child Development.

## PSYC4309

3 Credits

### Advanced Social Psychology

This course reviews social psychological theory and research techniques that are relevant to problems in applied settings (e.g. the legal system, business and industry, community and mental health). Topics include, but are not limited to, attitude formation, attitude change, prejudice and discrimination, altruism and attribution theory. Prerequisite: PSYC2234 Social Psychology.

## PSYC4376

3 Credits

### Advanced Abnormal Psychology

Considers the more debilitating disorders and reviews various psychopathologies in depth. Discussion of psychotherapeutic and somatic approaches. Prerequisite: PSYC3315 Abnormal Psychology.

## PSYC4377

3 Credits

### Physiological Psychology

Relationship between aspects of behavior and physiology. Basic neuroanatomy; neurophysiology; and the effects upon behavior of drugs, cortical lesions and internal secretions. Prerequisites: PSYC1103 General Psychology and 3 additional credits in psychology.

## PSYC4391

3 Credits

### Techniques of Psychotherapy

Techniques used by several schools of psychotherapy and research in the field. Application of behavioral principles to behavior and relationship variables in therapy. Prerequisite: PSYC1103 General Psychology and either PSYC3315 Abnormal Psychology or PSYC3384 Theories of Personality.

## PSYC4398

3 Credits

### Computer Applications for Data Analysis

This course will cover the usage of SPSS statistical software and related programs (e.g. Excel) for data management, analysis and graphing. Emphasis will be placed on using graphical interface of SPSS software, but program syntax for various applications also will be covered. This course will also cover scientific report writing (e.g. summarizing SPSS output) with emphasis placed on APA style.

## PSYC4498

3 Credits

### Internship in Psychology

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills.

## PSYC4499

3 Credits

### Co-op Education in Psychology

Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of the director of the co-op program.

## PSYC4500

3 Credits

### Senior Seminar in Psychology

A capstone course for psychology majors to both unify and provide a broader context for knowledge about the field of psychology gained throughout the undergraduate years. The course is designed to evaluate critical thinking and to prepare students for their career paths following graduation. Particular emphasis will be placed on helping students explore the connections among themselves, the field of psychology and the rest of the world. Students will be required to write integrative review papers, give oral and poster-format presentations and defend their e-portfolios. Prerequisite: PSYC3202 Experimental Psychology.

Fee

## PSYC4501

3 Credits

### Advanced Senior Seminar in Psychology

A capstone course for psychology majors to unify and apply knowledge and skills gained in previous courses. Students will gain an understanding of how to integrate, critically evaluate and apply psychological theory and empirical findings to address problems and topical issues in the behavioral sciences. Heavy emphasis is placed on report writing and oral presentation of research projects. Prerequisites: PSYC2201 Statistics and PSYC3202 Experimental Psychology.

## PSYC4800

1–3 Credits Each Semester

### Senior Independent Study in Psychology

Independent study under the direction of a specific faculty member after consultation with the school director. Limit of 6 credits.

## PSYC4875

1–6 Credits

### Honors Psychology

Independent study in psychology for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

### Graduate Courses

Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the school director. Interested students should see the *Graduate Studies Bulletin* for a list of courses and descriptions.

# Radiography

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## Radiography

*Henry P Becton School of Nursing  
and Allied Health*

**RADT1101**  
**3 Credits**

### **Introduction to Radiography and Protection**

This course introduces the student to the diagnostic imaging department and to the health care environment, radiation safety and protection, medical law and ethical practice. Diverse issues related to these topics will be explored. Corequisites: RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

**RADT1105**  
**4 Credits**

### **Radiographic Procedures I**

This is the first course in a series of four courses that are designed to orient the student radiographer to anatomy, positioning, physiology, terminology and imaging procedures of the thorax, abdomen and upper limb. Acceptable practices and principles that are introduced in lecture are reinforced in structured laboratory and clinical practice. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1110 Clinical Practicum I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

**RADT1110**  
**1 Credit**

### **Clinical Practicum I**

The first course in a series of eight clinical-education courses that is designed to enable the student to develop those skills that are necessary to perform in the capacity of an entry-level radiographer upon completion of this program. This course serves as an introduction to the medical-imaging career and department. CPR requirements are met this semester. Using the Competency-based Clinical Education model, students will have an opportunity to acquire competency in radiography of the thorax, abdomen and upper limb. Students are afforded 120 hours of experience to meet course objectives and requirements. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1105 Radiographic Procedures I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

**RADT1120**  
**1 Credit**

### **Clinical Practicum II**

The second course in a series of eight clinical-education courses and a continuation of RADT1110 Clinical Practicum I. This course

will enable students to continue to develop professional and technical skills. Using the Competency-based Clinical Education model, students will have the opportunity to acquire competency in all previously covered imaging studies. Students are required to complete objectives in mobile, surgical, venipuncture and vital signs. Students are afforded 112 hours of experience to meet course objectives and requirements. Prerequisite: RADT1110 Clinical Practicum I.

**RADT1130**  
**2 Credits**

### **Clinical Practicum III**

The third course in a series of eight clinical-education courses designed to enable progression in the development of entry-level skills as a radiographer. There will be an introduction to contrast media and urographic procedures. Using the Competency-based Clinical Education model, students have the opportunity to acquire competency in all areas previously covered, lower limb radiography and the femora, pelvis and spine. Students are afforded 240 hours of experience to meet course objectives and requirements. Prerequisite: RADT1120 Clinical Practicum II. Corequisites: RADT1135 Radiographic Procedures II and RADT2251 Advanced Principles of Radiographic Exposure.

**RADT1131**

**3 Credits**

### **Principles of Radiographic Exposure I**

This course introduces the student to those principles related to image production and evaluation, as it relates to materials used and physical processes. Topics of this course include film, cassettes, grids, intensifying screens, imaging plates, processing chemistry, radiographic film processing and artifact formation. Students will study the multitude of factors that impact image creation. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I and RADT1150 Fundamentals of Patient Care.

**RADT1135**

**4 Credits**

### **Radiographic Procedures II**

This is the second course in a series of four positioning/procedures designed to introduce the student to basic anatomy, physiology, terminology and imaging procedures of the lower limb and the spinal column. In addition, students will be introduced to basic studies that involve the use of opaque contrast agents. Acceptable practices and principles that are introduced in the lecture are reinforced in structured laboratory and clinical practice. Prerequisite: RADT1105 Radiographic Procedures I. Corequisites: RADT1130 Clinical Practicum III and RADT2251 Advanced Principles of Radiographic Exposure.

**RADT1140**

**4 Credits**

### **Clinical Practicum IV**

The fourth course in a series of eight clinical-education courses that is designed to enable a continued progression toward the development of entry-level skills as a radiographer. Using the Competency-based Clinical Education model, students will have an opportunity to acquire competency in those areas previously covered in RADT1105 Radiographic Procedures I and RADT1135 Radiographic Procedures II in addition to contrast-media studies. Students are afforded 560 hours of experience to meet course objectives, requirements and quality-assurance objectives. Prerequisite: RADT1130 Clinical Practicum III.

**RADT1150**

**3 Credits**

### **Fundamentals of Patient Care**

This course introduces the student to the skills needed for the management and care of all patient populations while in the clinical environment. Topics of this course include: communication, pharmacology, infection control, sterile technique, isolation, body mechanics, vital signs, venipuncture, contrast-media administration and management of emergency situations. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I and RADT1131 Principles of Radiographic Exposure I.

**RADT2250**

**2 Credits**

### **Clinical Practicum V**

The fifth course in a series of eight clinical-education courses designed to prepare the student radiographer for entry-level skills development. During this phase in the education process, students will perfect all clinical skills acquired over the course of one year. Using the Competency-based Clinical Education model, students may acquire competency in all previously covered areas, in addition to advanced contrast-media examinations, skull radiography and geriatric and pediatric populations. Students are afforded 240 hours of experience to meet course objectives and requirements. Prerequisite: RADT1140 Clinical Practicum IV. Corequisites: PHYS1114 Physics for Radiography, RADT2252 Radiation Biology and Safety and RADT2255 Radiographic Procedures III.

**RADT2251**

**3 Credits**

### **Advanced Principles of Radiographic Exposure**

The focus of this course is the photographic and geometric creation of a radiographic image. The content of this course includes density, contrast, recorded detail and distortion. Mathematical manipulations, technical compensations and application of theory as it relates to clinical prac-

# Reading • Religion

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tics will be explored. Prerequisite: RADT1131 Principles of Radiographic Exposure I. Corequisites: RADT1130 Clinical Practicum III and RADT1135 Radiographic Procedures II.

## **RADT2252** 2 Credits

### **Radiation Biology and Safety**

The primary focus of this course is to orient students about effects produced by ionizing radiation in living cells and matter. Cell survival, genetic effects, somatic effects and radiation syndromes are discussed in detail. Correlation of such effects is made to radiation safety practices and protection standards that are stipulated at the state and national levels. Prerequisite: RADT1101 Introduction to Radiography and Protection. Corequisites: PHYS1114 Physics for Radiography, RADT2250 Clinical Practicum V and RADT2255 Radiographic Procedures III.

## **RADT2254** 2 Credits

### **Radiographic Imaging Equipment and Quality Management**

This course is a study of diagnostic-imaging equipment and quality-control practices. Topics of this course include: diagnostic circuitry, imaging tubes, image intensification, body-section radiography, mobile units and automatic exposure control. Students will perform calculations and modules related to the previously indicated content. Prerequisite: PHYS1114 Physics for Radiography. Corequisites: RADT2270 Clinical Practicum VII, RADT2271 Radiographic Pathology and RADT2275 Radiographic Procedures IV.

## **RADT2255** 4 Credits

### **Radiographic Procedures III**

This is the third course in a series of four imaging procedures-related courses that is designed to introduce students to complex imaging procedures of the skull, facial and para-nasal sinuses. There will be an intensive reinforcement of anatomy, physiology and terminology as it relates to the content covered in this course. Acceptable practices and principles that are introduced in this course are reinforced in structured laboratory and clinical practice. Prerequisite: RADT1135 Radiographic Procedures II. Corequisites: PHYS1114 Physics for Radiography, RADT2250 Clinical Practicum V and RADT2252 Radiation Biology and Safety.

## **RADT2270** 2 Credits

### **Clinical Practicum VII**

The seventh course in a series of eight clinical-education courses that are designed to develop entry-level skills that are needed to enter the profession. Using the Competency-based Clinical Education model, students may acquire competency in all previously covered studies, in

addition to cases such as “grams.” Students are afforded 240 hours of experience to meet course objectives and requirements. Corequisites: RADT2254 Radiographic Imaging Equipment and Quality Management, RADT2271 Radiographic Pathology and RADT2275 Radiographic Procedures IV.

## **RADT2271** 2 Credits

### **Radiographic Pathology**

The emphasis of this course is the identification of pathologic diseases and conditions that require procedural modification and/or technical compensation that have an effect on patient care and the outcome of radiographic quality. Corequisites: RADT2254 Radiographic Imaging Equipment and Quality Management, RADT2270 Clinical Practicum VII and RADT2275 Radiographic Procedures IV.

## **RADT2275** 4 Credits

### **Radiographic Procedures IV**

This is the last course in a series of four radiographic procedures-related courses that focuses on complex imaging studies, modalities and therapy. In addition, students will have an opportunity to experience relevant radiography computer programs as part of the final laboratory experience. Prerequisite: RADT2255 Radiographic Procedures III. Corequisites: RADT2254 Radiographic Imaging Equipment and Quality Management, RADT2270 Clinical Practicum VII and RADT2271 Radiographic Pathology.

## **RADT2280** 4 Credits

### **Clinical Practicum VIII**

The last course in a series of eight clinical-education courses designed to prepare graduates for entry into the field of medical imaging. During the final phase of their education, students are expected to master all technical and clinical skills. Using the Competency-based Clinical Education model, students must complete all mandatory, elective, continual and terminal competency evaluations to meet the program's graduation requirements. Students will complete all sub-specialty imaging objectives. Students are afforded 560 hours of experience to meet course objectives and requirements. Prerequisite: RADT2270 Clinical Practicum VII.

## **RADT4002** 3 Credits

### **Advanced Radiological Science I**

This course will provide the student with an overview of physics, cross-sectional anatomy, positioning, instrumentation and nursing care involved in magnetic resonance imaging. It will focus on the use of computed tomography for

imaging the head, neck, abdomen, pelvis and extremities. Some attention will be devoted to physics, nursing care, contrast administration and cross-sectional anatomy.

## **RADT4003** 3 Credits

### **Advanced Radiological Science II**

This course will provide the technologist with the knowledge of quality management applications and data analysis. Emphasis will be on radiographic and mammographic quality control, collection of data and instrumentation. This course of study focuses on mammography (breast imaging), emphasizing routine and special projections of the breast. Imaging equipment and Mammography Quality Standards Act (MQSA) also will be addressed. Prerequisite: RADT4002 Advanced Radiological Science I.

# Reading

## **Academic Advising and Student Support Services Office**

### **Developmental Reading**

Remediation is required for students whose screening test scores indicate they lack reading proficiency. Students requiring remediation must take READ0097 Fundamentals of College Reading I as indicated by the Academic Resource Center. This course carries no credit toward graduation.

## **READ0097** 0 Credits

### **Fundamentals of College Reading I**

Precollege reading. Emphasis on textbook-reading skills, such as surveying, outlining, summarizing, basic reading skills and close-reading techniques.

# Religion

## **School of the Humanities**

## **RELI1105** 3 Credits

### **World Religions in America**

This course is an exploration of the changing multi-religious landscape of the United States, looking at the history and dynamic interaction of the various religious traditions that now compose the American religious scene, with special emphasis on the religious life of Buddhists, Hindus, Sikhs, Jains and Muslims. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL1105 World Religions in America.)

# Sociology

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## RELI2107

3 Credits

### One God, Three Paths

The course will trace the historical development of the three great Western monotheistic faiths, Judaism, Christianity and Islam. What makes this course unique is that it is team taught by a rabbi, a priest and an imam, all of whom will share their insights into their faith traditions with the students and with each other. The course also aims to give participants a workshop in a global learning experience that will lead the students not only to greater knowledge, but also to an appreciation for, and commitment to religious diversity in the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

## RELI2207

3 Credits

### Philosophy of Religion

God's existence and attributes, problem of evil, religious truth, religious views of history, myth and language systems, meaning in religion. (Equivalent to PHIL2207 Philosophy of Religion.)

## RELI2255

3 Credits

### Person, Gender and Sexuality: Judaism, Christianity and Islam

This course, an interfaith endeavor taught by professors from the Jewish, Christian and Muslim traditions, will trace the historical development of the meaning and value of person, gender and sexuality in these traditions. Emphasis will be placed on understanding the cultural, historical and theological basis of these terms; the convergences of the meanings of these terms in the three traditions; and the contemporary applicability of these concepts from a global perspective. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2255 Person, Gender and Sexuality: Judaism, Christianity and Islam.)

## RELI2273

3 Credits

### The Battle Over the Book

This course will introduce students to the various interpretative patterns used by the People of the Book over the ages. Specifically, the course will examine the historical patterns of interpreting the sacred texts of Judaism, Christianity and Islam. It will emphasize the rich diversity in interpretations, as well as the unrelenting efforts to preserve fidelity to the traditions. Finally, the course will focus on helping students understand how these patterns had an impact on and continue to impact the state of affairs of the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

## RELI3316

3 Credits

### Babylon the Great: Culture, Religion and Conflict in Iraq

This course is an introduction to the cultural and religious history of Iraq beginning in the fourth millennium BCE and continuing through the present day. Topics will include the invention of writing, the origin of cities, Mesopotamian law and religion, the Epic of Gilgamesh, the rise of Islam, cultural continuities in the Middle East and the legacy of the ancient Near East in western civilization. Students will engage in a variety of methodological approaches in the humanities as they learn of the rich cultural and religious heritage of Iraq and consider important questions about its future. *FDU NetID (formerly Webmail) account required.* Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3316 Babylon the Great: Culture, Religion and Conflict in Iraq.)

## RELI3317

3 Credits

### Ancient Egypt: Mummies/Myth/Magic

This course provides an introduction to the religion, history, society and culture of ancient Egypt, which was one of the most sophisticated and long-lived civilizations in world history. Special attention will be given to funerary literature and religion, cults, magic and ritual, religious art and architecture, the sacred writing system and the religion of daily life. (Equivalent to HUMN3317 Ancient Egypt: Mummies/Myth/Magic.)

## RELI3321

3 Credits

### The Book of Job and Its Interpreters

This course will examine the Biblical book of Job as a work of literature and religious thought and will develop the analysis historically in comparison with ancient near Eastern, classical, medieval and modern philosophical discussions and theological commentaries of the Joban tradition. In this class, students will wrestle with such themes as theodicy, piety, evil, suffering and the nature of the divine-human experience. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3321 The Book of Job and Its Interpreters.)

## RELI3323

3 Credits

### The Ethics of Jesus

A study of the ethical teachings of Jesus through an analysis of the Sermon on the Mount. The philosophy of Dietrich Bonhoeffer will assist in this study. Ethical case studies from business, health care and foreign and domestic policy will be introduced. Prerequisite: ENWR1002 Composition II: Research and Argument.

## RELI3324

3 Credits

### Islamic Religion — Past and Present

The course presents an overview of the Islamic religion, beginning with the Prophet Muhammad (the Meccan and Medinan periods), through the dynasties (Umayyad and Abassid) and the Ottoman empire to the modern period.

## RELI3334

3 Credits

### Religion and Politics

This course explores the controversial and sometimes bloody crossroads between politics and religion. Specific topics may include religion as a political construct and instrument of power in society, the role of biblical traditions in the development of church-state relations in the United States, prophetic rhetoric and liberation theologies as public modes of discourse for social justice, morality, ethics and the just-war debate and the development of a suitable political theology for contemporary society. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3334 Religion and Politics.)

## RELI4431

1–3 Credits

### Selected Studies in Religion

Studies in an area of religious study. Prerequisite: ENWR1002 Composition II: Research and Argument.

## RELI4439

3 Credits

### Questioning Religion

Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions and in people's own lives. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4439 Questioning Religion and PHIL4439 Questioning Religion.)

# Sociology

## School of Criminal Justice, Political Science and International Studies

NOTE: 1000-level courses may be counted toward the major.

## SOCI1101

3 Credits

### Introductory Sociology

A systematic introduction to basic sociological concepts (culture, norms, status, roles, groups, institutions), landmark studies and their applications for understanding our own and the world's cultures.

# Spanish Language and Culture

University College: Arts • Sciences • Professional Studies  
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## SOCI1113

3 Credits

### Sports in Society

Analysis of sports as a sociological phenomenon. Categories of analysis include organizational, economic and political aspects of sports teams; social origins of sports participants; and sports in cross-cultural perspective.

## SOCI2115

3 Credits

### Introduction to Social Work

This course provides an introduction to the practice of community service work with individuals, families and groups. Together with the ethical principles of social service work, it also explores the dynamics of social policy development.

## SOCI2805

3 Credits

### Contemporary Social Issues

A survey and analysis of major current issues in America and international societies and cultures, including such topics as poverty, social justice, culture change and the global economy.

## SOCI3201

3 Credits

### Methods in Social Research

Concepts, methods and applications of research that form the scientific foundation of our understanding of society, including qualitative studies (ethnography, participant observation, conversational interviews) and quantitative studies (sample surveys), along with techniques for interviewing and applications of theory to practice. Prerequisite: SOCI1101 Introductory Sociology.

## SOCI3316

3 Credits

### The Family: Stability and Dysfunction

Family as the central social institution in America and across the world is studied in relation to the economic, political and religious forces of which it is a part. The course also analyzes changes in family structure and ideals, roles within the family, emergent family forms, patterns of fertility in and out of marriage and divorce and remarriage patterns historically and currently.

## SOCI3318

3 Credits

### Health and Society: Access and Issues

Health care as a social institution; cultural views of health and illness; connections between wellness and social class; cultural assumptions in medical research and treatment; the training of doctors, nurses and other healers across cultures; challenges to the medical establishment through the consumer advocacy movement; patients' rights groups and the internet; the modern interplay of various cultural healing sys-

tems including allopathic, homeopathic, ayurvedic and holistic.

## SOCI3520

3 Credits

### Race, Generation and Immigration

The course focuses on factors affecting Asians, blacks and Latinos in the United States; their parallel experiences of Americanization; changing experiences of race as a function of successive generations living in the U.S.; and the bicultural gap between family and "American" culture.

## SOCI3415

3 Credits

### Internship in Social Work

Students work in a specific community-service setting, using and applying what they have learned in their social work courses to gather and refine skills in working to help people with their needs and problems. Prerequisites: SOCI3316 The Family: Stability and Dysfunction and SOCI3318 Health and Society: Access and Issues.

### Criminal Justice and Legal Studies

With pre-approval, select courses in criminal justice and legal studies may serve to fulfill sociology-recommended electives. See pages 435–440.

# Spanish Language and Culture

## School of the Humanities

## SPAN1101

3 Credits

### Elementary Spanish I

Essentials of Spanish grammar. Easy reading selections leading to extensive conversation and writing.

## SPAN1102

3 Credits

### Elementary Spanish II

A continuation of the essentials of Spanish grammar. Easy reading selections leading to extensive conversation and writing. Prerequisite: SPAN1101 Elementary Spanish I or equivalent.

## SPAN1111

3 Credits

### Spanish for Health Personnel

Primarily for students in the nursing program, stressing the acquisition of basic communication skills in the fields of health and medicine. Basic grammatical structures studied within the context of the health professions.

## SPAN2103

3 Credits

### Intermediate Spanish I

Review of grammar with intermediate-level readings. Prerequisite: SPAN1102 Elementary Spanish II or equivalent.

## SPAN2104

3 Credits

### Intermediate Spanish II

A continuation of the review of grammar with intermediate-level readings. Prerequisite: SPAN2103 Intermediate Spanish I or equivalent.

## SPAN3301

3 Credits

### Advanced Conversation in Spanish

Discussion of contemporary topics in Spanish.

## SPAN3304

3 Credits

### Spanish for Careers

Practical vocabulary needed in such fields as airlines, business, computers, education, health care and social work. Conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.

## SPAN3435

3 Credits

### The Modern Spanish-American Short Story

This course introduces the students to a variety of short stories from Mexico, the Caribbean and Central and South America. The genre will be explored in its literary, historical and cultural contexts. Prerequisite: SPAN2104 Intermediate Spanish II or SPAN3301 Advanced Conversation in Spanish.

## SPAN3439

3 Credits

### Latin-American Culture and Civilization

An overview of the history and cultures of pre-Columbian times to present-day Latin America. Students are introduced to various modes of cultural productions and social and political structures that have shaped modern Latin America. Prerequisite: SPAN2104 Intermediate Spanish II.

## SPAN3440

3 Credits

### Latin-American Short Stories: Fantasy and Mystery

Stories with elements of fantasy and/or mystery will be read, including detective stories and science fiction. Some will be by well-known authors such as Jorge Luis Borges and Gabriel Garcia Marquez. The class will be conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.

# Speech • Theater

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SPAN3454

3 Credits

## Introduction to Latin-American Literature

This course offers a panoramic view of Spanish-American literature from the 16th century to the most recent production, with emphasis on 20th-century writers and their search for new modes of expression to reflect the social, historical and political events that have shaped the region's destiny.

SPAN3455

3 Credits

## Introduction to Spanish Literature

This course provides an overview of Spanish literature from medieval times to the present. Students will read representative samples of novels, short stories, poems, essays and plays. Prerequisite: SPAN2104 Intermediate Spanish II or SPAN3301 Advanced Conversation in Spanish.

SPAN3456

3 Credits

## Spanish Culture and Civilization

This course is a panoramic survey of the historical, geographical and various artistic expressions of Spanish civilization. An eclectic array of sources from history, art, architecture, film, music and literature are utilized to explore the main events that have shaped the character of modern peninsular culture. Prerequisite: SPAN2104 Intermediate Spanish II.

SPAN3457

3 Credits

## Introduction to Latin-American Literature

This course offers a panoramic view of Spanish-American literature from the 16th century to most recent productions. Special emphasis is placed on 20th-century writers and their search for new modes of expression that reflect the social, historical and political events that have shaped the region's destiny. Prerequisite: SPAN2103 Intermediate Spanish I or SPAN2104 Intermediate Spanish II.

SPAN4235

3 Credits

## Latin-American Media and Film

This course provides a comprehensive and critical overview of some of the most important media systems in Latin America. A selection of films from Mexico, Argentina, Cuba and other Latin-American countries will be studied in their social, political and cultural contexts. Conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.

SPAN4259

3 Credits

## Spanish Linguistics

The study of the Spanish language including history, structure and sounds. Comparative linguistics of French, Italian, Portuguese, Romanian and Spanish and their relationship to Latin.

tics of French, Italian, Portuguese, Romanian and Spanish and their relationship to Latin.

SPAN4437

3 Credits

## Advanced Composition in Spanish

Study in writing Spanish, aimed at fluency and ease of expression. Conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II.

SPAN4440

3 Credits

## The Hispanic Novel: From Cervantes to García Márquez

This course offers a sampling of novels from representative writers of Spain and Latin America. Important literary periods and movements will be studied in their respective contexts — from Spain's Golden Age period to the literary boom in Latin America of the 1960s. Prerequisite: SPAN3301 Advanced Conversation in Spanish or SPAN4437 Advanced Composition in Spanish.

SPAN4800

1–3 Credits Each Semester

## Independent Study in Spanish Language and Literature

Independent study under the direction of a specific faculty member after consultation with the school director.

SPAN4875

Variable Credits

## Honors Spanish

Independent study in Spanish for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

# Speech

## School of Art and Media Studies

SPCH1105

3 Credits

## Voice Production and Articulation

A basic course in voice and articulation including practice in enunciation, production of voice tone and the sounds of standard English speech. Basic concepts of anatomy and physiology of speech mechanism.

SPCH1155

3 Credits

## Public Speaking

Training in the organization of ideas and effective delivery through practice in speaking before an audience.

SPCH2153

3 Credits

## Speech and Voice Improvement

Practice in improvement of voice and articulation through the study of phonetics and standard American English.

SPCH2217

3 Credits

## Speech for Broadcasters

Voice training for students interested in pursuing a career in broadcasting or acting, including exercises in acquiring the right speaking rate for delivering the news and selecting audition material such as film and stage monologues. (Equivalent to THEA2217 Speech for Actors.)

SPCH2318

3 Credits

## Oral Presentations

A skills-oriented course providing students with practical experience in incorporating multimedia into oral presentations within a professional setting.

SPCH2351

3 Credits

## Persuasive Speaking

Theory of argumentation and debate and practice in preparation and delivery of different types of persuasive speeches.

SPCH2353

3 Credits

## Speech: Small-group Discussion

Dynamics of successful small-group communications. Roles of leaders and participants explored in theory and practice.

SPCH4430

Variable Credits

## Selected Studies in Speech (Sportscasting)

Studies in an area of speech.

SPCH4800

Variable Credits

## Independent Study in Speech

Independent study under the direction of a specific faculty member after consultation with the school director.

# Theater

## School of Art and Media Studies

THEA1103

3 Credits

## Introduction to Theater

Theater as an art form, emphasizing playwrights, actors, directors, designers, technicians, dramatic forms and performing spaces. Off-campus play-going required. Recommended for majors.



**THEA1104****3 Credits****History and Development of the Theater I**

Development and history of theater from its origins to the beginning of the English Renaissance.

**THEA1105****3 Credits****History and Development of the Theater II**

Development and history of theater from the English Renaissance to Ibsen. Prerequisite: THEA1104 History and Development of the Theater I or permission of instructor.

**THEA1106****3 Credits****Playgoing and Analysis**

Theater attendance and classroom criticism of professional productions. Backstage discussions. Cost for theater tickets additional. Students responsible for their own transportation.

**THEA2205****3 Credits****Acting: Theory and Practice I**

Basic theories and techniques of acting through scene and character analysis, body and voice training, improvisation and performance.

**THEA2206****3 Credits****Acting: Theory and Practice II**

Further study in basic theory and practice. Prerequisite: THEA2205 Acting: Theory and Practice I or department permission.

**THEA2210****3 Credits****Directing: Theory and Practice II**

Advanced course in directing techniques. Students will direct or co-direct a complete production. Prerequisite: THEA2219 Directing: Theory and Practice I or department permission.

**THEA2211****3 Credits****Stagecraft**

Survey and practicum in the techniques required to mount a theatrical production. Students required to participate in campus productions.

**THEA2217****3 Credits****Speech for Actors**

Voice training for students interested in pursuing a career in broadcasting or acting, including exercises in acquiring the right speaking rate for delivering the news and selecting audition material such as film and stage monologues. (Equivalent to SPCH2217 Speech for Broadcasters.)

**THEA2218****1 Credit****Technical Theater Production I**

Experience in creating scenery, lighting, sound and special effects for theater productions. Not suitable for fine arts core.

**THEA2219****3 Credits****Directing: Theory and Practice I**

Basic theory and techniques of directing, organization, staging and interpretation. Students required to direct and perform at least two scenes per semester.

**THEA3305****3 Credits****Advanced Acting I**

Essential techniques stressing truthful human behavior on stage. Concentration on basic acting exercises.

**THEA3306****3 Credits****Advanced Acting II**

Continuation of THEA3305 Advanced Acting I. In-depth scene study. Prerequisite: THEA3305 Advanced Acting I or permission of instructor.

**THEA3309****3 Credits****Advanced Directing I**

For those seriously interested in developing in depth as directors. One-act play to be staged. Prerequisite: THEA2210 Directing: Theory and Practice II or permission of instructor.

**THEA3310****3 Credits****Advanced Directing II**

Staging an original one-act play or preliminary work on staging a full-length play. Prerequisite: THEA3309 Advanced Directing I or permission of instructor.

**THEA4432****1–3 Credits Each Semester****Selected Studies in Theater**

Studies in an area of theater. The course may be repeated but students may not repeat the topic.

**THEA4800****1–3 Credits Each Semester****Independent Study in Theater**

Independent study under the direction of a specific faculty member after consultation with the school director.

*Fall, Spring, Summer*

# Wroxton College

Wroxton College  
Oxfordshire, England

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# Wroxton College

Oxfordshire, England

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the Wroxton College Study Abroad Office on the Metropolitan Campus, Teaneck, New Jersey.

## Undergraduate

### Business

IBUS2201

3 Credits

#### **Fundamentals of International Business**

Provides an awareness of the environmental and managerial aspects of international business. Explores the complexities and implications of exposure to international competition and technology.

*Spring*

### Communications

COMM5026

3 Credits

#### **Communication: Culture and the Media in Britain**

The course will investigate the past and present interrelationships between the public/commercial media and British culture. Students will be provided with the conceptual tools to analyze the dynamics among the historic, political, economic and cultural aspects of British society. The course will be practically oriented.

*Fall, Spring*

### University Core

UNIV2001

3 Credits

#### **Cross-cultural Perspectives**

In the third course in the University Core program, students learn to describe and analyze cultural phenomena in their own lives, to grapple with cultural differences and to understand cultural conflicts. Through a study of samples across a variety of cultures, students examine the fluidity and multiplicity of cultural identities and borders. Ways in which cultures change, how cultures shape and are shaped by individuals, how misunderstandings and conflicts arise within and between cultures and how those differences evolve are central to the course. Critical-thinking skills are developed and brought to bear on these topics. Prerequisites: UNIV1002 Preparing for Professional Life and ENG1101

College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.

UNIV2002

3 Credits

#### **Global Issues**

In the fourth course in the University Core program, students develop essential aspects of critical thinking and apply those skills in evaluating international systems, environmental issues and human-rights questions. Not only will this course demonstrate the global dimensions of crucial contemporary issues, it will also develop the relational thinking that students will be expected to exercise in other academic contexts and throughout the rest of their personal and professional lives. In other words, this course is as much about how to study and think about global problems and relationships as it is a course about specific global issues. Prerequisites: UNIV2001 Cross-cultural Perspectives and ENG1101 College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.

### Economics

ECON3022

3 Credits

#### **European Economic Integration**

The economic growth and development of Europe is examined in the context of economic regionalism and integration. Emphasis is on the evolution of institutions, policies and processes since 1945 that have brought Europe to where it is today.

*Fall*

### English

ENGL3410

3 Credits

#### **Modern Novels on the Screen**

The methods and achievements of film and television adaptations will be assessed within the parameters of their own media as well as through close critical study of the original texts. The course will include analysis of major novels by writers such as E.M. Forster, D.H. Lawrence, Evelyn Waugh and Graham Greene.

*Spring*

ENGL3421

3 Credits

#### **Not of an Age ... But for All Time**

An exploration of the ways in which plays of the 16th and 17th centuries reach out to us today. Particular reference will be made to plays being

presented by the Royal Shakespeare Company at the Swan Theatre, Stratford-upon-Avon.

*Fall*

ENGL3422

3 Credits

#### **"The Play's the Thing"**

An examination of the relationship between text and performance. The course will focus on plays in the Royal Shakespeare Company's season at Stratford-upon-Avon.

*Fall*

ENGL3424

3 Credits

#### **"To Hold the Mirror Up to Nature"**

The course will trace how actors, directors and designers work on a text, with particular reference to productions staged by the Royal Shakespeare Company. The potential for a variety of interpretations will be explored further through analysis of film and television productions of the plays.

*Spring*

ENGL3456

3 Credits

#### **20th-century Drama**

The course will consider how shifting cultural, social and political ideas have been reflected in the style and content of dramatic literature of the period. The theater's social awareness over the century and close textual analysis will be supplemented by close critical study of plays in performance.

*Fall*

ENGL3463

3 Credits

#### **England's Green and Pleasant Land**

The course will inquire into some of the ways in which England's landscape and social structures have been the focus for generations of poets and prose writers. The work studied will range from Edmund Spenser to Philip Larkin via the Romantic movement.

*Spring*

ENGL3466

3 Credits

#### **Three 19th-century Writers**

The sheer mass of 19th-century literature can be daunting. The course will enable students to discover enthusiasms and engage in close analysis of three authors including one of the Romantic poets (Tennyson, Browning or Hopkins), work by one of the Bronte sisters and the works of either Charles Dickens, George Eliot or Thomas Hardy.

*Fall*

**ENGL3467****3 Credits****18th-century Literature**

The course looks at novels, poetry and shorter fiction, where one finds many kinds of satire, philosophical ideas and sentiment, making up a rich picture of 18th-century life. The course will focus on the writings of Pope, Swift, Defoe, Johnson and Austen.

*Fall***ENGW3002****3 Credits****Creative Writing I**

A workshop in imaginative literature providing sustained practice in individual writing projects. May be repeated for credit. Prerequisite: consent of instructor.

*Fall, Spring***Fine Arts****ART3415****3 Credits****The Development of British Painting in Britain and North America**

The course is an introduction to the history of painting and allied arts from the early modern period, c. 1485 to the present. Content will be studied against artistic developments in Europe, particularly where British and American artists relied on Continental sources for training and inspiration. Lectures will cover the development of style and technique, the choice and range of subjects and the relationship between patrons and artists. All major artists will be covered, and a series of supervised visits to the national collections will support the lecture and tutorial program.

*Fall, Spring***History****HIST3422****3 Credits****Britain in the Modern Era**

A history of Britain in the 19th and 20th centuries, which will focus on the political, social, economic and cultural developments that have "made" contemporary Britain.

*Fall, Spring***Interdisciplinary****INTER3430****3 Credits****The Anatomy of Contemporary Britain**

This course is intended as a helpful companion to finding oneself not only in a foreign country but also in a foreign culture. It has been specifically designed to introduce the student to the environment and lifestyle of Britain today.

*Fall, Spring***Political Science****POLS3450****3 Credits****British Government and Politics**

The purpose of the course is to give a broad introduction to the origins, development, structure and workings of the British system of government and British politics. The office of prime minister, the Cabinet, Civil Service, Parliament, political parties and pressure groups are among the topics covered. Circumstances permitting, the course will be supplemented by a trip to Parliament to meet members of the House of Commons and House of Lords to discuss with them issues raised during the course.

*Fall, Spring***POLS3454****3 Credits****Descent from Power: British Foreign Policy Since 1900**

The course examines the foreign policy process in Britain and the movement of Britain from a perceived position of "Great Power" status to one of accepted "Middle Power" status against a background of changing domestic and international environments during the 20th century.

*Fall***POLS3456****3 Credits****The Power and Personality of the British Prime Minister**

The course focuses on the developing role of the British prime minister, from Walpole to the present day, with emphasis placed on the prime ministers of the 20th century. The powers of the office are examined, with analysis directed toward the extent to which an individual's personality is important in determining the scope of power. Prerequisite: POLS3450 British Government and Politics.

*Spring***Psychology****PSYC3318****3 Credits****The Psychology of Everyday Persuasion**

The 21st century is characterized by information overload. Individuals in western democracies are subject to influence and manipulation in all their forms. Democracy, that depends on persuasion, has become viewed with cynicism. This course investigates the historical development of the techniques used by public and commercial organizations. Issues such as advertising and public relations will be studied. Students will be assisted in developing techniques to detect and resist propaganda.

*Fall, Spring***Sociology****SOCI3440****3 Credits****Women and Race in Modern Britain**

An examination of the varied circumstances of women and ethnic minorities in contemporary Britain, of the extent of sexual and racial discrimination that exists and of strategies adopted to remove or overcome both forms of discrimination.

*Fall, Spring***SOCI3445****3 Credits****Social Policy in Contemporary Britain**

An examination of the causes and extent of poverty, unemployment, crime, ill health, bad housing, poor schooling, etc., in contemporary Britain, and of governmental and other social policies designed to "improve" society.

*Fall, Spring*

# Faculty and Administration

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## Faculty

### **Sameh Abdelazim**

*Assistant Professor of Electrical Engineering Technology and Electrical Engineering*  
B.S.E.E., M.S.E.E., M.Ph.E., Ph.D., City College of New York

### **Catherine Acosta**

*Senior Lecturer of Psychology*  
B.A., Binghamton University, State University of New York; M.A., Columbia University

### **Anthony J. Adrignolo**

*Professor of Global Transportation Studies*  
B.S.I.E., Fairleigh Dickinson University; M.S.O.R., New York University

### **Joseph Agugliaro**

*Associate Professor of Biology; Health and Preprofessional Adviser, Florham Campus*  
B.S., The College of New Jersey; Ph.D., University of Arkansas

### **Vahid Alizadeh**

*Assistant Professor of Civil and Construction Engineering Technology*  
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### **James G. Almeida**

*Associate Professor of Entrepreneurship; Associate Dean of Graduate Programs, Silberman College of Business*  
B.S., M.M.S., University of Bombay, India; M.B.A., Northeast Louisiana University; Ph.D., University of South Carolina

### **Fernando Alonso**

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### **Petros Anastasopoulos**

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### **Gloria Anderle**

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### **Wladina Antoine**

*Professor of Mathematics*  
B.A., City College of New York, City University of New York; M.S., Ed.D., Teachers College, Columbia University

### **Stephen R. Armeli**

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B.B.A., Temple University; M.A., Ph.D., University of Delaware

### **Willy A. Aroca**

*Vancouver Campus Faculty Lecturer of Hospitality and Tourism Management*  
B.A., Bowling Green State University; M.A., Royal Roads University, Canada

### **Yelena Aronson**

*Professor of Computer Graphics*  
B.S., Moscow Architectural College, Russia; B.F.A., School of Visual Arts; M.F.A., Brooklyn College, City University of New York

### **Bahareh Assadi**

*Vancouver Campus Faculty Lecturer of Administrative Science*  
B.A., University of British Columbia, Canada; D.B.M., M.B.A., University of Phoenix

### **Michael Avaltroni**

*Associate Professor of Chemistry; Dean of School of Pharmacy and Health Sciences, Florham Campus*  
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### **Marzieh Azarderakhsh**

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### **Jarrett Bachman**

*Vancouver Campus Faculty Assistant Professor of Hospitality and Tourism Management*  
B.Sc., M.Ed., M.N.R., University of Georgia; Ph.D., Clemson University

### **Nicholas D.J. Baldwin**

*Dean and Director of Operations of Wroxton College; British Faculty of Wroxton College*  
B.A., University of Hull; Ph.D., University of Exeter

### **Robin Barkley**

*Professor of Animation and Graphic Arts; Director of Animation Program, Florham Campus*  
B.F.A., M.A., William Paterson University

### **Michele Barto**

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### **Bruno Battistoli**

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### **Patricia Bazán-Figueras**

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### **Stephen E. Bear**

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### **Scott Behson**

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### **Silvia Belen-Ramos**

*Senior Lecturer of Spanish*  
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### **Peter Benson**

*Professor of English*  
B.A., Boston College; M.A., Ph.D., Stony Brook University, The State University of New York

### **Alice Benzecry**

*Associate Professor of Biological Sciences*  
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### **Cynthia Bergstein**

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### **Kenneth Betz**

*Senior Lecturer of Economics*  
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### **Paula Blank**

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### **Justin Bogart**

*Assistant Professor of Inorganic Chemistry*  
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### **Joshua Bornstein**

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B.A., Dartmouth College; M.A., University of Maryland, College Park; Ph.D., Syracuse University

### **Janet Boyd**

*Associate Professor of English; Director of School of the Humanities, Metropolitan Campus; Interim Director of School of Art and Media Studies, Metropolitan Campus; Interim Associate Dean of University College: Arts • Sciences • Professional Studies*  
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### **Matthieu Boyd**

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### **Lisa R. Braverman**

*Assistant Professor of Administrative Science; Dean of Anthony J. Petrocelli College of Continuing Studies*  
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B.S., M.S., Ph.D., Stevens Institute of Technology

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B.S.Ed., Clarion University of Pennsylvania; M.Ed., Colorado State University; M.A., Fairleigh Dickinson University; Ph.D., Seton Hall University

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*Clinical Instructor of Nursing*  
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**Jaime Buenahora**

*Clinical Assistant Professor of Political Science*  
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**James Bulsiewicz**

*Assistant Professor of Finance*  
B.S.M., Tulane University; M.S., London School of Economics and Political Science, England; Ph.D., University of Utah

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## **Puerta al Futuro® Program**

**Fernando Alonso, J.D.**

*Director*

## **University College: Arts • Sciences • Professional Studies**

**Metropolitan Campus, Teaneck, N.J., and Vancouver Campus, British Columbia, Canada**

**Vicki L. Cohen, Ph.D.**  
*Interim Dean*

**Janet Boyd, Ph.D.**  
*Interim Associate Dean*

**Mary Farrell, Ph.D.**  
*Director, Center for Dyslexia Studies*

**Mutiara Mohamad, Ed.D.**  
*Director, Programs in Language, Culture and Professional Advancement (PLCPA)*

### **School of Art and Media Studies**

**Janet Boyd, Ph.D.**  
*Interim Director*

### **Lee Gildart and Oswald Haase School of Computer Sciences and Engineering**

**Alfredo C. Tan, Ph.D.**  
*Director*

**Howard Silver, Ph.D.**  
*Deputy Director, Engineering, Engineering Technology and Information Technology Programs*

### **School of Criminal Justice, Political Science and International Studies**

**Samuel J. Raphaelides, Ph.D.**  
*Director*

**Patrick J. Reynolds, M.P.A.**  
*Assistant Director*

### **Peter Sammartino School of Education**

**Miriam Singer, Ed.D.**  
*Interim Director*

**Louis Ray, Ph.D.**  
*Deputy Director*

**Joshua Bornstein, Ph.D.**  
*Coordinator of Educational Leadership Program*

**Sora Suh, M.Ed.**  
*Coordinator of ESL/Second Language Acquisition Program*

**Carol Karpinski, Ed.D.**  
*Director, Master of Arts in Teaching Program*

**Vicki L. Cohen, Ed.D.**  
*Program Coordinator, Instructional Technology Certificate Program*

**Kathryn Spence, Ed.D.**  
*Director, QUEST/B.A.-M.A.T.*

**Teresa Oettinger Montani, Ed.D.**  
*Director, Learning Disabilities Program*

**Vincent Martone, M.A.**  
*Assistant Director/Field Placement and Teacher Certification*

### **School of the Humanities**

**Janet Boyd, Ph.D.**  
*Director*

### **School of Natural Sciences**

**James Dougherty, Ph.D.**  
*Co-director*

**Marion McClary, Ph.D.**  
*Co-director*

### **Henry P. Becton School of Nursing and Allied Health**

**Minerva Guttman, Ed.D.**  
*Director*

**Marycarol Rossignol, Ph.D.**  
*Associate Director of Nursing Programs, Florham Campus*

**Sylvia Colon-Cabassa, D.N.P.**  
*Associate Director of Undergraduate Nursing Program, Metropolitan Campus*

**Marilyn R. Rubin Ed.M.**  
*Associate Director of Allied Health Programs*

**Boas Yu, Ed.D.**  
*Associate Director of Graduate Nursing Program*

### **Physical Education**

**Catherine M. Liggett, B.S.**  
*Coordinator*

### **School of Psychology**

**Robert McGrath, Ph.D.**  
*Director*

**Stephen H. Armeli, Ph.D.**  
*Director, M.A. Program in General/Theoretical Psychology; Director, Undergraduate Studies, B.A./M.A. in General/Theoretical Psychology Program*

**Robert Prentky, Ph.D.**  
*Director, M.A. in Forensic Psychology Program*

**Stefanie Ulrich, Ph.D.**  
*Director, Center for Psychological Services*

**Jamie Zibulsky, Ph.D.**  
*Director, Psy.D. and M.A. Programs in School Psychology*

## **Vancouver Campus**

### **British Columbia, Canada**

**Wilfred J. Zerbe, Ph.D.**  
*Campus Executive*

**David O'Reilly, M.B.A.**  
*Deputy Campus Executive*

### **Admissions**

**Natalia Kharitonova, Ph.D.**  
*Director of Admissions*

### **B.A. in Individualized Studies Program**

**Ajay Garg, Ph.D.**  
*Program Coordinator of Individualized Studies Program*

### **B.S. in Information Technology Program**

**Vasudevan Janarthanan, Ph.D.**  
*Program Coordinator of Information Technology Program*

### **Enrollment Services**

**Alette Hernandez Pulido, B.A.**  
*Director of Enrollment Services*

### **Learning Resources**

**David O'Reilly, M.B.A.**  
*Director of Learning Resources and Support Programs and Business Manager*

### **Marketing and Recruitment**

**Amy Yan, M.A.S.**  
*Director of Marketing and Recruitment*

### **Master of Administrative Science Program**

**Ajay Garg, Ph.D.**  
*Associate Director of Master of Administrative Science Program*

### **Student Services**

**Jobin Mojtabavi, M.A.S.**  
*Director of Student Services*

### **Technology and Information Services**

**Jonn Martell, B.Sc.**  
*Director of Technical Operations*

### **University Core**

**James Gifford, Ph.D.**  
*Director of University Core Program*

### **Global Scholars**

**Gudrun Dreher, Ph.D.**  
*Director of Global Scholars Program*

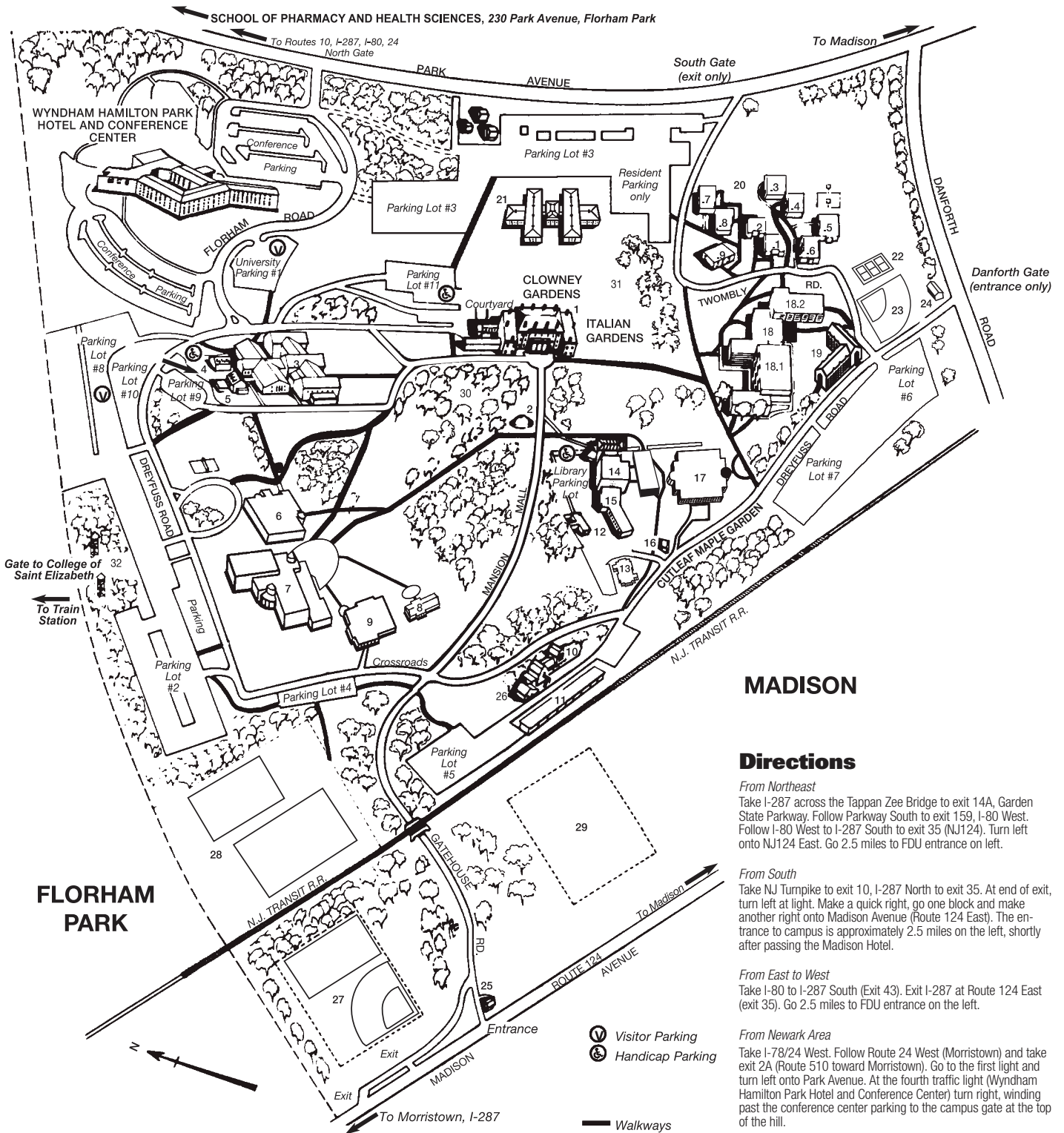
## **Wroxton College**

### **Oxfordshire, England**

**Nicholas D.J. Baldwin, Ph.D.**  
*Dean and Director of Operations*

# Florham Campus

Madison, New Jersey



## MADISON

### Directions

#### From Northeast

Take I-287 across the Tappan Zee Bridge to exit 14A, Garden State Parkway. Follow Parkway South to exit 159, I-80 West. Follow I-80 West to I-287 South to exit 35 (NJ124). Turn left onto NJ124 East. Go 2.5 miles to FDU entrance on left.

#### From South

Take NJ Turnpike to exit 10, I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.

#### From East to West

Take I-80 to I-287 South (Exit 43). Exit I-287 at Route 124 East (exit 35). Go 2.5 miles to FDU entrance on the left.

#### From Newark Area

Take I-78/24 West. Follow Route 24 West (Morristown) and take exit 2A (Route 510 toward Morristown). Go to the first light and turn left onto Park Avenue. At the fourth traffic light (Wyndham Hamilton Park Hotel and Conference Center) turn right, winding past the conference center parking to the campus gate at the top of the hill.

#### From Pennsylvania

Take I-78 East to I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to the campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.

## FLORHAM PARK

## Campus Buildings

- 1 Hennessy Hall (Mansion)
- 2 Reuter's Rock
- 3 Science Building
- 4 East Cottage
- 5 West Cottage
- 6 Martin F. Stadler, Patrick J. Zenner, Hoffmann-La Roche Inc. Academic Building
- 7 Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center
- 8 Rothman Building-Admissions (Rothman Institute of Innovation and Entrepreneurship offices located in Hennessy Hall [Mansion], Bldg. 1)
- 9 Dreyfuss Building
- 10 Barn (Campus Safety, Campus Facilities/Maintenance, Web Lab)
- 11 Maintenance Shops
- 12 Maintenance Shops
- 13 Chaîne House
- 14 John and Joan Monninger Center for Learning and Research
- 15 Educational Opportunity Fund Office
- 16 Public Relations Office
- 17 Frank Santoloci Student Center
- 18 Twombly Residence Halls
  - 18.1 Florence Twombly Hall
  - 18.2 Hamilton Twombly Hall
- 19 Rutherford Hall (Residence Hall)
- 20 Village Residence Halls
  - 20.1 Stirling Hall
  - 20.2 York Hall
  - 20.3 Ellsworth Hall
  - 20.4 Barclay Hall
  - 20.5 Penn Hall
  - 20.6 Rice Hall
  - 20.7 Wilder Hall
  - 20.8 Vanderbilt Hall
  - 20.9 Danforth Hall
- 21 Park Avenue Residence Hall
- 22 Tennis Courts
- 23 McManus Field
  - Softball
- 24 Wellness Center
- 25 Gatehouse
- 26 Black Box Theater
- 27 Athletics Field
  - Baseball
  - Men's Soccer
- 28 Robert T. Shields Athletics Field
  - Football
  - Men's and Women's Lacrosse
- 29 Athletics Field
  - Field Hockey
  - Men's and Women's Soccer
- 30 Secret Garden
- 31 Sculpture Gardens
- 32 Gate to College of Saint Elizabeth

## Where to Find

- |  |   |
|--|---|
| Academic Support Center  | Monninger Center, Bldg. 14  |
| Admissions   | Rothman Building, Bldg. 8   |
| Adult Education (Continuing Education)                           | 230 Park Avenue, Florham Park   |
| Advising   | Hennessy Hall (Mansion), Bldg. 1  |
| Allied Health  | Science Building, Bldg. 3   |
| Arts and Sciences, Maxwell Beeton College of Arts, School of the | Hennessy Hall (Mansion), Bldg. 1<br>Dreyfuss Building & Hennessy Hall, Bldgs. 9 & 1                         |
| Art Studio   | Florence Twombly Hall, Bldg. 18.1   |
| Athletics  | Ferguson Recreation Center, Bldg. 7   |
| ATM Machine  | Santoloci Student Center, Bldg. 17  |
| Audiovisual (Instructional Media)                                | Monninger Center, Bldg. 14  |
| Beeton College of Arts and Sciences, Maxwell                     | Hennessy Hall (Mansion), Bldg. 1  |
| Biology  | Science Building, Bldg. 3   |
| Black Box Theater  | Bldg. 26  |
| Bookstore  | Santoloci Student Center, Bldg. 17  |
| Bottle Hill Room and Pub   | Santoloci Student Center, Bldg. 17  |
| Bursar   | Hennessy Hall (Mansion), Bldg. 1  |
| Business, Silberman College of Cafeterias                        | Hennessy Hall (Mansion),<br>Stadler/Zenner Academic Building,<br>Santoloci Student Center, Bldgs. 1, 6 & 17 |
| Campus Executive, Office of                                      | Hennessy Hall (Mansion), Bldg. 1  |
| Campus Life  | Santoloci Student Center, Bldg. 17  |
| Campus Ministry  | Florence Twombly Hall, Bldg. 18.1   |
| Career Development   | Santoloci Student Center, Bldg. 17  |
| Chemistry/Geological Sciences                                    | Science Building, Bldg. 3   |
| Communication  | Stadler/Zenner Academic Building, Bldg. 6   |
| Computer Center, Peter Falley                                    | Dreyfuss Building, Bldg. 9  |
| Computer Science/Mathematics                                     | Stadler/Zenner Academic Building, Bldg. 6   |
| Computing Services   | Dreyfuss Building, Bldg. 9  |
| Conferences/Summer Programs                                      | Santoloci Student Center, Bldg. 17  |
| Confrerie de la Chaîne des Rôtisseurs National Headquarters      | Chaîne House, Bldg. 13  |
| Continuing Education   | 230 Park Avenue, Florham Park   |
| Copy Center  | Hennessy Hall (Mansion), Bldg. 1  |
| Core Curriculum Office   | Hennessy Hall (Mansion), Bldg. 1  |
| Counseling   | Wellness Center, Bldg. 24   |
| Criminology  | Hennessy Hall (Mansion), Bldg. 1  |
| Dean of Students   | Santoloci Student Center, Bldg. 17  |
| Dean, Maxwell Beeton College of Arts and Sciences                | Hennessy Hall (Mansion), Bldg. 1  |
| Dean, Silberman College of Business                              | Hennessy Hall (Mansion), Bldg. 1  |
| Education  | Hennessy Hall (Mansion), Bldg. 1  |
| Educational Opportunity Fund (EOF)                               | Bldg. 15  |
| English  | Monninger Center, Bldg. 14  |
| Enrollment Services  | Hennessy Hall (Mansion), Bldg. 1  |
| Entrepreneurship, Rothman Institute of Innovation and            | Hennessy Hall (Mansion), Bldg. 1  |
| Facilities Department  | Barn, Bldg. 10  |
| Financial Aid  | Hennessy Hall (Mansion) Courtyard, Bldg. 1  |
| Fine Arts  | Twombly Residence Halls, Bldg. 18   |
| Florham Institute for Lifelong Learning                          | Hennessy Hall (Mansion), Bldg. 1  |
| Florham Room   | Santoloci Student Center, Bldg. 17  |
| Food Service Office  | Santoloci Student Center, Bldg. 17  |
| Freshman Experience  | Santoloci Student Center, Bldg. 17  |
| Freshman Intensive Studies Program                               | Hennessy Hall (Mansion), Bldg. 1  |
| Global Learning  | Hennessy Hall (Mansion), Bldg. 1  |
| Hartman Lounge   | Hennessy Hall (Mansion), Bldg. 1  |
| Health Services  | Wellness Center, Bldg. 24   |
| History/Social Sciences  | Hennessy Hall (Mansion), Bldg. 1  |
| Honors Program   | Hennessy Hall (Mansion), Bldg. 1  |
| Hospitality and Tourism Management, International School of      | Chaîne House, Bldg. 13  |
| Housing Office   | Santoloci Student Center, Bldg. 17  |
| Human Resources, University                                      | Chaîne House, Bldg. 13  |
| Instructional Media Center                                       | Monninger Center, Bldg. 14  |

- |   |   |
|---|---|
| Interactive Television (ITV)                                      | Dreyfuss Building and Monninger Center, Bldgs 9 & 14, and 230 Park Avenue, Florham Park |
| International Education, Office of                                | Hennessy Hall (Mansion), Bldg. 1  |
| International Student Services                                    | Santoloci Student Center, Bldg. 17  |
| Journal of Psychology and Behavioral Science                      | Stadler/Zenner Academic Building, Bldg. 6   |
| Languages   | Hennessy Hall (Mansion), Bldg. 1  |
| Leafs and Grains  | Stadler/Zenner Academic Building, Bldg. 6   |
| Learning Disabilities, Regional Center for                        | Hennessy Hall (Mansion), Bldg. 1  |
| Lenfell Hall  | Hennessy Hall (Mansion), Bldg. 1  |
| Library   | Monninger Center, Bldg. 14  |
| Literary Review, The  | Gatehouse, Bldg. 25   |
| Literature  | Hennessy Hall (Mansion), Bldg. 1  |
| Mailroom, University  | Hennessy Hall (Mansion), Bldg. 1  |
| Maintenance   | Barn, Bldg. 10  |
| Mansion   | Hennessy Hall, Bldg. 1  |
| Mathematics/Computer Science                                      | Stadler/Zenner Academic Building, Bldg. 6   |
| MBA Program   | Hennessy Hall (Mansion), Bldg. 1  |
| Medical Technology  | Science Building, Bldg. 3   |
| Modern Languages  | Hennessy Hall (Mansion), Bldg. 1  |
| Nurse   | Wellness Center, Bldg. 24   |
| Paralegal Studies   | 230 Park Avenue, Florham Park   |
| Parking Permits   | Barn, Bldg. 10  |
| Petrocelli College of Continuing Studies, Anthony J.              | 230 Park Avenue, Florham Park   |
| Pharmacy and Health Sciences, School of                           | 230 Park Avenue, Florham Park   |
| Philosophy  | Hennessy Hall (Mansion), Bldg. 1  |
| Physics   | Stadler/Zenner Academic Building, Bldg. 6   |
| Pillar (Student Newspaper)  | Florence Twombly Hall, Bldg. 18.1   |
| President, Office of  | Hennessy Hall (Mansion), Bldg. 1  |
| Psychology  | Stadler/Zenner Academic Building, Bldg. 6   |
| Pub   | Santoloci Student Center, Bldg. 17  |
| Public and Global Affairs, School of                              | 230 Park Avenue, Florham Park   |
| Public Relations  | Bldg. 16  |
| Public Safety   | Barn, Bldg. 10  |
| Records/Registration  | Hennessy Hall (Mansion), Bldg. 1  |
| Regional Center for Learning Disabilities                         | Hennessy Hall (Mansion), Bldg. 1  |
| Rothman Institute of Innovation and Entrepreneurship              | Hennessy Hall (Mansion), Bldg. 1  |
| Rutherford Room   | Ferguson Recreation Center, Bldg. 7   |
| Safety/Security   | Barn, Bldg. 10  |
| Sammartino Room   | Santoloci Student Center, Bldg. 17  |
| Silberman College of Business                                     | Hennessy Hall (Mansion), Bldg. 1  |
| Snax  | Hennessy Hall (Mansion), Bldg. 1  |
| Social Sciences/History   | Hennessy Hall (Mansion), Bldg. 1  |
| Special Student Services  | Santoloci Student Center, Bldg. 17  |
| Student Health  | Wellness Center, Bldg. 24   |
| Student Life  | Santoloci Student Center, Bldg. 17  |
| Student Newspaper (Pillar)  | Florence Twombly Hall, Bldg. 18.1   |
| Student Recreational Services                                     | Ferguson Recreation Center, Bldg. 7   |
| Study-abroad Programs   | Hennessy Hall (Mansion), Bldg. 1  |
| Sullivan Lounge   | Hennessy Hall (Mansion), Bldg. 1  |
| Swimming Pool   | Ferguson Recreation Center, Bldg. 7   |
| Teleconference Site   | Dreyfuss Building, Room 125, Bldg. 9  |
| Theater   | Dreyfuss Building, Bldg. 9  |
| The Grill   | Santoloci Student Center, Bldg. 17  |
| University Advancement  | Monninger Center, Bldg. 14  |
| University Provost and Senior Vice President for Academic Affairs | Hennessy Hall (Mansion), Bldg. 1  |
| Veterans Services   | Stadler/Zenner Academic Building, Bldg. 6   |
| Visual/Performing Arts  | Dreyfuss Building, Bldg. 9  |
| Web Lab   | Barn, Bldg. 10  |
| Wellness Center   | Bldg. 24  |
| WFDM (Student Radio)  | Santoloci Student Center, Bldg. 17  |
| Writing, College Program  | Monninger Center, Bldg. 14  |
| Wroxton College (Study-abroad Programs)                           | Hennessy Hall (Mansion), Bldg. 1  |
| Wroxton Room  | Santoloci Student Center, Bldg. 17  |

# Metropolitan Campus

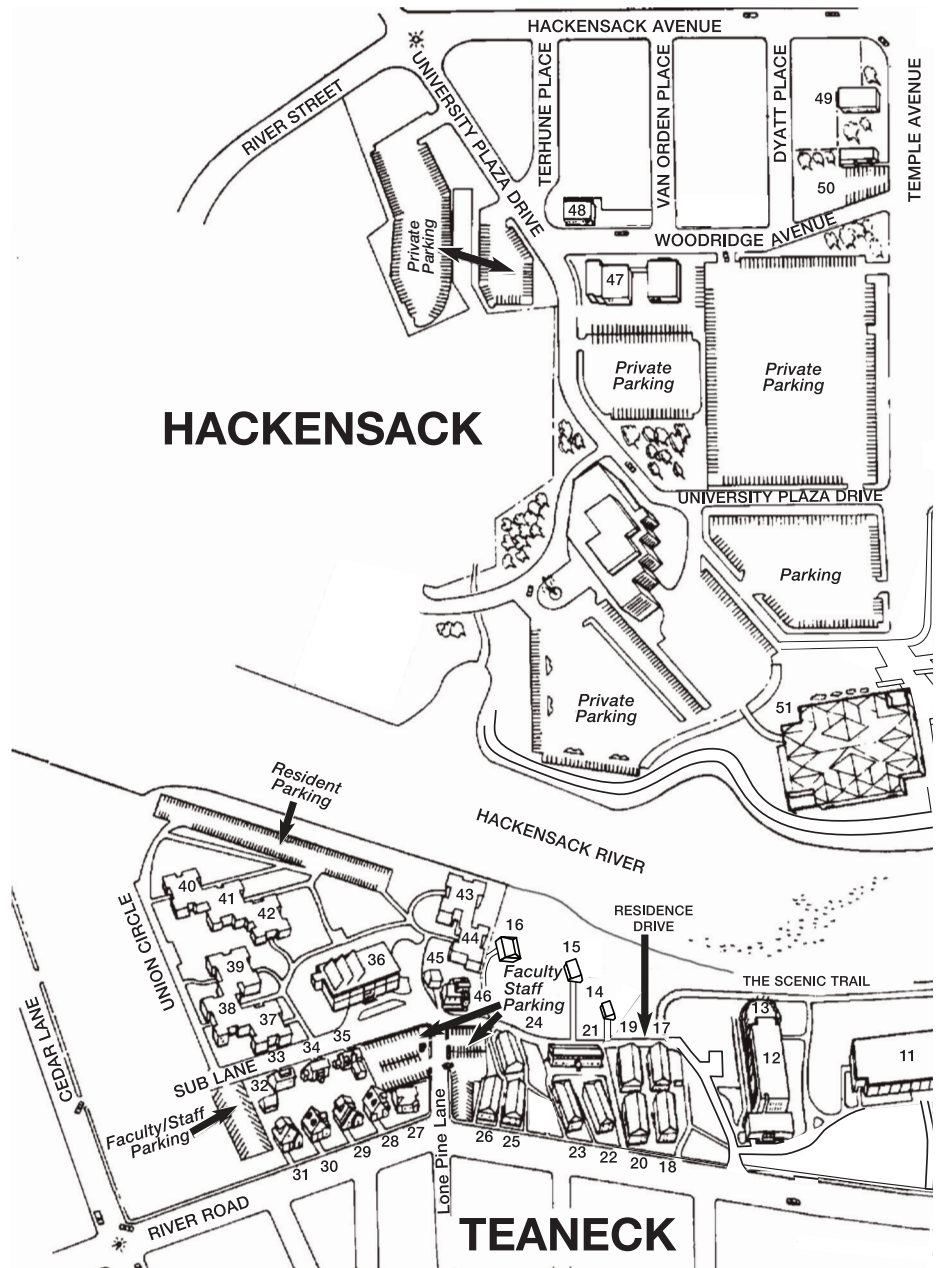
Teaneck, New Jersey

## Campus Buildings

- 1 Bancroft Hall (1094 River Road, Teaneck)
- 2 Williams Hall (1090 University Circle, Teaneck)
- 3 Fitness Center (1080 University Circle, Teaneck)
- 4 Northpointe (Residence Hall)
- 5 Robison Hall (1040 University Circle, Teaneck)
- 6 Robison Hall Annex (1081 Scenic Trail, Teaneck)
- 7 Muscarelle Center for Building Construction Studies (1004 University Circle, Teaneck)
- 8 Kron Administration Building (1000 River Road, Teaneck)
- 9 University Hall (994 Library Circle, Teaneck)
- 10 Alumni Hall (990 Library Circle, Teaneck)
- 11 Frank Giovatto Library (980 Library Circle, Teaneck)
- 12 Becton Hall (960 River Road, Teaneck)
- 13 Becton Theater (960 River Road, Teaneck)
- 14 914 River Road, Teaneck (continuation of Lone Pine Lane)
- 15 River House (888 River Road, Teaneck, continuation of Lone Pine Lane)
- 16 Banta Coe House (884 Lone Pine Lane)
- 17 University Court Residence Hall #9 (929 Lone Pine Lane, Teaneck)
- 18 University Court Residence Hall #10 and WFDU-FM (920 River Road, Teaneck)
- 19-23 University Court Residence Halls #4-8 (896, 906, 916 River Road and 901, 921 Lone Pine Lane, Teaneck)
- 24-26 University Court Residence Halls #1-3 (883 Lone Pine Lane and 882, 886 River Road, Teaneck)
- 27 Public Safety Office (870 River Road, Teaneck)
- 28 Interfaith Chapel (842 River Road, Teaneck)
- 29 841 River Road, Teaneck
- 30 840 River Road, Teaneck
- 31 838 River Road, Teaneck
- 32 Housekeeping
- 33 835 SUB Lane, Teaneck (Programs in Language, Culture and Professional Advancement)
- 34 839 SUB Lane, Teaneck (SUB Annex)
- 35 867 SUB Lane, Teaneck (Dean of Students)
- 36 Student Union Building (SUB)
- 37-44 Linden Residence Halls #1-8
- 45 Knight Spot (24/7 Study Lounge)
- 46 880 Lone Pine Lane, Teaneck
- 47 10 Woodridge Ave., Hackensack
- 48 Maintenance Shop
- 49 139 Temple Ave., Hackensack
- 50 131 Temple Ave., Hackensack
- 51 George and Phyllis Rothman Center (100 University Plaza Drive, Hackensack)
- 52 Dickinson Hall (140 University Plaza Drive, Hackensack)
- 53 Edward Williams Hall (150 Kotte Place, Hackensack)
- 54 Field House (1130 River Road, Teaneck)
- 55 1154 River Road, Teaneck
- 56 Naimoli Family Baseball Complex
- 57 Athletic Fields
  - a Softball
  - b Soccer
  - c Tennis

## Where to Find

Academic Advisement Center	Robison Hall, Bldg. 5	Art and Media Studies	University Hall, Bldg. 9
Academic Affairs, Senior Vice President for, and University Provost	Dickinson Hall, Bldg. 52	Arts • Sciences • Professional Studies, University College:	Robison Hall, Bldg. 5
Academic Resource Center	Robison Hall, Bldg. 5	Athletics	Rothman Center, 100 University Plaza Drive, Hackensack, Bldg. 51
Administrative Science	Dickinson Hall, Bldg. 52	ATM Machine	Dickinson Hall, Bldg. 52
Admissions		Audiovisual (Instructional Media)	Giovatto Library & Dickinson Hall, Bldgs. 11 & 52
Graduate, International	Kron Administration Building, Bldg. 8	Biological Sciences	Dickinson Hall, Bldg. 52
Undergraduate,		Bookstore	Alumni Hall, Bldg. 10
Full-time, Part-time, Adult	Dickinson Hall, Bldg. 52	Bursar	Kron Administration Building, Bldg. 8
Adult Education (Continuing Education)	Dickinson Hall, Bldg. 52	Business, Silberman College of	Dickinson Hall, Bldg. 52
Advisement,		Campus Executive, Office of	Robison Hall, Bldg. 5
Business Graduate Students	Dickinson Hall, Bldg. 52	Career Development	Giovatto Library, Bldg. 11
Advisement, Office of Professional Programs/Graduate Studies	Robison Hall, Bldg. 5	Certified Financial Planning	Dickinson Hall, Bldg. 52
Allied Health, Nursing and	Dickinson Hall, Bldg. 52	Chaplain's Office	Interfaith Chapel, Bldg. 28
Alumni Relations	Dickinson Hall, Bldg. 52	Chemistry	Dickinson Hall, Bldg. 52



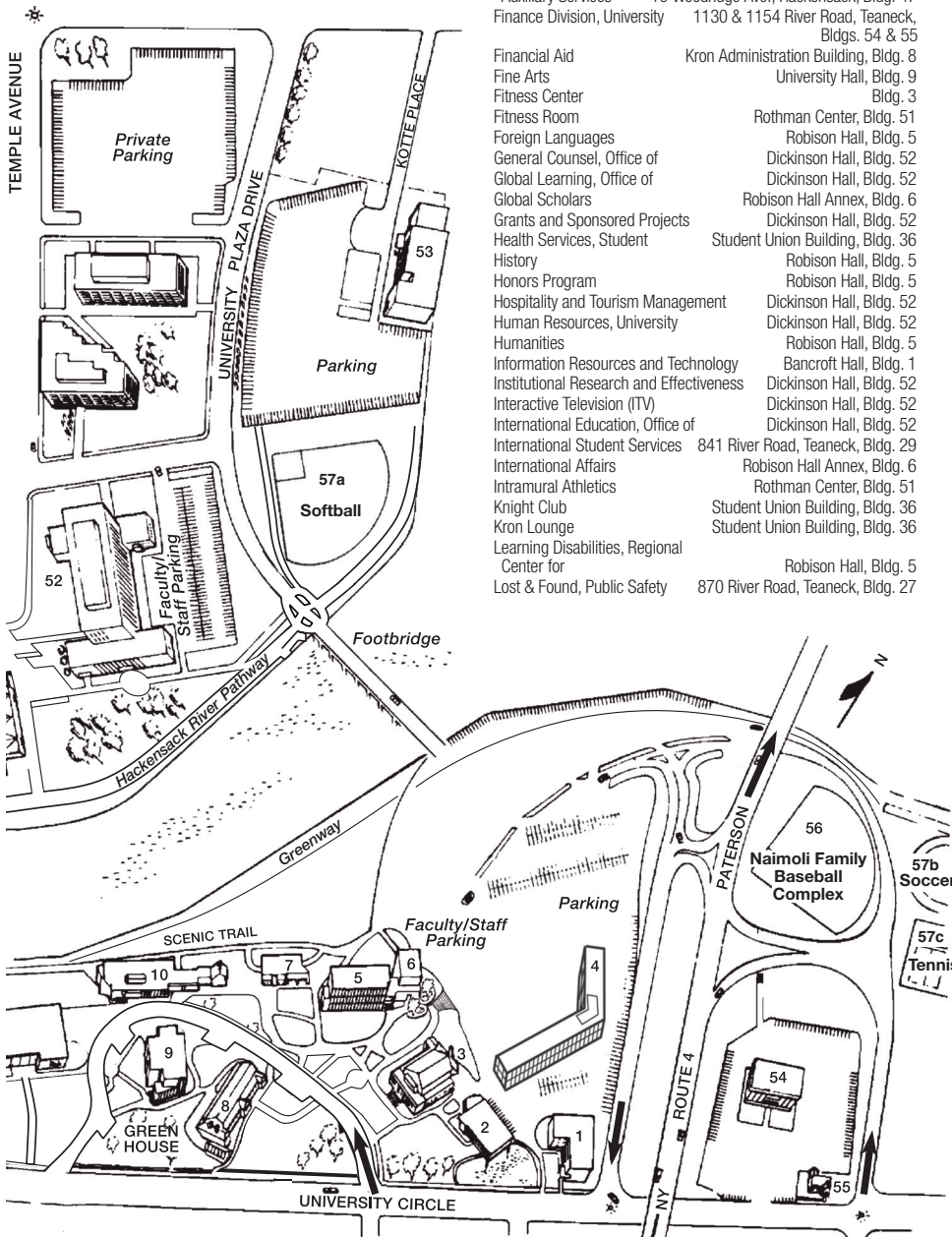
# Metropolitan Campus

Teaneck, New Jersey

Communications/Speech Robison Hall, Bldg. 5  
 Computer Sciences and Engineering Muscarelle Center & Becton Hall, Bldgs. 7 & 12  
 Computing Services University Hall & Dickinson Hall, Bldgs. 9 & 52  
 Continuing Education Dickinson Hall, Bldg. 52  
 Continuing Studies, Anthony J. Petrocelli College of Edward Williams Hall, Bldg. 53  
 Cooperative Education Giovatto Library, Bldg. 11  
 Copy Center Giovatto Library, Bldg. 11  
 Core Curriculum Office Dickinson Hall, Bldg. 52  
 Counseling and Psychological Services, Student (S-CAPS) 914 River Road, Teaneck, Bldg. 14  
 Criminal Justice Robison Hall Annex, Bldg. 6  
 Dean of Students 867 SUB Lane, Teaneck, Bldg. 35  
 Dean, Petrocelli College of Continuing Studies, Anthony J. Edward Williams Hall, Bldg. 53  
 Dean, Silberman College of Business Dickinson Hall, Bldg. 52

Dean, University College: Arts • Sciences • Robison Hall, Bldg. 5  
 Professional Studies Alumni Hall, Student Union Building & Dickinson Hall, Bldgs. 10, 36 & 52  
 Dining Halls Student Union Building, Bldg. 36  
 Dining Services Office Bancroft Hall, Bldg. 1  
 Education 840 River Road, Teaneck, Bldg. 30  
 Educational Opportunity Fund (EOF) Robison Hall, Bldg. 5  
 Employment Office Dickinson Hall, Bldg. 52  
 Engineering Muscarelle Center & Becton Hall, Bldgs. 7 & 12  
 English Robison Hall, Bldg. 5  
 Enhanced Freshman Experience Robison Hall, Bldg. 5  
 Enrollment Management Dickinson Hall, Bldg. 52  
 Enrollment, Planning and Effectiveness, Office of Dickinson Hall, Bldg. 52  
 Equinox (Student Newspaper) Student Union Building, Bldg. 36  
 Executive MBA Programs Dickinson Hall, Bldg. 52  
 Facilities and Auxiliary Services 10 Woodridge Ave., Hackensack, Bldg. 47  
 Finance Division, University 1130 & 1154 River Road, Teaneck, Bldgs. 54 & 55  
 Financial Aid Kron Administration Building, Bldg. 8  
 Fine Arts University Hall, Bldg. 9  
 Fitness Center Bldg. 3  
 Fitness Room Rothman Center, Bldg. 51  
 Foreign Languages Robison Hall, Bldg. 5  
 General Counsel, Office of Dickinson Hall, Bldg. 52  
 Global Learning, Office of Dickinson Hall, Bldg. 52  
 Global Scholars Robison Hall Annex, Bldg. 6  
 Grants and Sponsored Projects Dickinson Hall, Bldg. 52  
 Health Services, Student Student Union Building, Bldg. 36  
 History Robison Hall, Bldg. 5  
 Honors Program Robison Hall, Bldg. 5  
 Hospitality and Tourism Management Dickinson Hall, Bldg. 52  
 Human Resources, University Dickinson Hall, Bldg. 52  
 Humanities Robison Hall, Bldg. 5  
 Information Resources and Technology Bancroft Hall, Bldg. 1  
 Institutional Research and Effectiveness Dickinson Hall, Bldg. 52  
 Interactive Television (ITV) Dickinson Hall, Bldg. 52  
 International Education, Office of Dickinson Hall, Bldg. 52  
 International Student Services 841 River Road, Teaneck, Bldg. 29  
 International Affairs Robison Hall Annex, Bldg. 6  
 Intramural Athletics Rothman Center, Bldg. 51  
 Knight Club Student Union Building, Bldg. 36  
 Kron Lounge Student Union Building, Bldg. 36  
 Learning Disabilities, Regional Center for Robison Hall, Bldg. 5  
 Lost & Found, Public Safety 870 River Road, Teaneck, Bldg. 27

Mail Room, Student Student Union Building, Bldg. 36  
 Mail Room, University 10 Woodridge Ave., Hackensack, Bldg. 47  
 Mathematics/Computer Science Becton Hall, Bldg. 12  
 MBA Program Dickinson Hall, Bldg. 52  
 Metropolitan Club Alumni Hall, Bldg. 10  
 Natural Sciences Dickinson Hall, Bldg. 52  
 Nursing and Allied Health Dickinson Hall, Bldg. 52  
 Parking, Security 870 River Road, Teaneck, Bldg. 27  
 Payroll Dickinson Hall, Bldg. 52  
 Petrocelli College of Continuing Studies, Anthony J. Edward Williams Hall, Bldg. 53  
 Philosophy Robison Hall, Bldg. 5  
 Physical Education Rothman Center, Bldg. 51  
 Physics Dickinson Hall, Bldg. 52  
 Political Science Robison Hall Annex, Bldg. 6  
 President, Office of Dickinson Hall, Bldg. 52  
 Programs in Language, Culture and Professional Advancement 835 SUB Lane, Teaneck, Bldg. 33  
 Psychological Services, Center for 131 & 139 Temple Ave., Hackensack, Bldgs. 49 & 50  
 Psychological Services, Student Counseling and (S-CAPS) 914 River Rd., Teaneck, Bldg. 14  
 Psychology Williams Hall, Bldg. 2  
 Public Administration Dickinson Hall, Bldg. 52  
 Publications Dickinson Hall, Bldg. 52  
 Public Relations Dickinson Hall, Bldg. 52  
 Public Safety 870 River Road, Teaneck, Bldg. 27  
 Radio Station, WFDU-FM University Court #10, Bldg. 18  
 Radio Station (Student), WFDU-91.9-FM University Court #10, Bldg. 18  
 Records/Registration Kron Administration Building, Bldg. 8  
 Regional Center for Learning Disabilities Robison Hall, Bldg. 5  
 Residence Life 880 Lone Pine Lane, Bldg. 46  
 River House 888 River Road, Bldg. 15  
 Riverside Café Alumni Hall, Lower Level, Bldg. 10  
 Russell H. Ratsch Experimental Theatre University Hall, Bldg. 9  
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## Directions

**From North**  
 Garden State Parkway to exit 163 to Route 17 South to Route 4 East. Exit Route 4 at River Road. Campus parking is on the right.

**From South**  
 Take Garden State Parkway to exit 161 to Route 4 East. Exit Route 4 at River Road. Campus parking is on the right.

**From West**  
 Follow Route 80 East to Garden State Parkway North. Proceed on Garden State Parkway to exit 161 (Route 4 East). Follow Route 4 to River Road exit. Campus parking is on the right.

**From East**  
 Take the George Washington Bridge; follow signs to Route 4 West. Exit Route 4 at River Road. Campus parking is on the left, past the athletic fields.

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