

# Graduate Studies Bulletin

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## 2018–2019 Addendum



FAIRLEIGH  
DICKINSON  
UNIVERSITY

[www.fdu.edu](http://www.fdu.edu)

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**Addendum****Academic Calendar 2018–2019\*****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 (Fri.)	May 17

**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

*The academic calendar is subject to change with appropriate notice.*

\*Weekend, 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 FDU Credit Hour Definition.

## Fall 2018

Registration/Academic Counseling and Advising	September 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

## Spring 2019

Registration/Academic Counseling and Advising	January 2–4, January 7–11
Classes Begin, 8 a.m. (Sun.)	January 15
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
Online Registration for Summer 2019 Sessions Opens (Fri.)	March 15
Spring Recess	March 11–16
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

## Summer Session 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 (Fri.)	May 17
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 Semester Ends 11 p.m. (Thu.)	August 8

\*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.

## Addendum

# Admissions

## International Students

(Page 16)

Updated.

International students seeking admission to any graduate program at FDU may apply online at [fdu.edu/global](http://fdu.edu/global) and upload their account and official supporting documents.

One original copy and one translated and notarized copy (if not in English) of all the student's academic credentials verifying completion of the equivalent to a baccalaureate degree program in the United States at an accredited institution of higher learning. The student's record must demonstrate a high standard of academic performance to receive favorable admissions action.

Letters of recommendation and graduate entrance exams including, but not limited to, the Graduate Record Examinations (GRE) or the Graduate Management Admission Test (GMAT) are required for admission to some graduate programs. Students may check the website at

[fdu.edu/global](http://fdu.edu/global) for specific information regarding the admission requirements for specific academic programs.

International students whose native language is not English are required to submit the results of a test of English proficiency. Students from Antigua and Barbuda, Australia, the Bahamas, Barbados, Belize, Bermuda, Canada (excluding Quebec), Fiji, Grenada, Guyana, Ireland, Jamaica, Kiribati, Marshall Islands, Mauritius, Micronesia, New Zealand, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Solomon Islands, Trinidad and Tobago and United Kingdom do not need to submit test scores. A minimum score of 550 (paper-based), 213 (computer-based) or 79 (Internet-based) on the TOEFL (Test of English as a Foreign Language) or an overall band score of 6.0 or higher on the IELTS (International English Language System) or a 53 or higher on the Pearsons PTE-A is required. Students who are unable to meet the University's minimum English-proficiency requirement may apply for the intensive English program, offered by the ELS Language Center. The

University offers conditional admission in selected majors to students who apply to the ELS Language Center.

Applications for admission for the fall semester 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/J student visa must meet all admission criteria to be accepted as full-time graduate students and must register for at least 9 credit hours each semester (excluding summer) to maintain student-visa status.

Following admission, the University may require that all international students be tested to determine if additional English language study is required. If test results indicate further study is needed, the language requirements may consist of one or more semesters of English for Professional Success (EPS) course work.

International students applying for an F-1 visa must give evidence of financial support for a period of one year.

The University requires that international students carry University insurance coverage for sickness and medical benefits.

# Financial Aid and Scholarships

## Federally Funded Programs

(Pages 18–19)

Updated.

### Federal Loan Programs

#### **Federal Direct Unsubsidized Loan**

Eligible students may borrow up to \$20,500.00 per year (\$33,000.00 for graduate health-profession students enrolled in a nine-month academic year and \$37,167.00 for graduate health-profession students enrolled in a 12-month academic year) from the Federal Direct Unsubsidized Loan program. Interest begins accruing at disbursement but may be capitalized and payments deferred until enrollment ceases (or drops below half-time). 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 vary-

ing 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 (subject to change). The Direct Unsubsidized Loan has a six-month grace period following the last date of at least half-time attendance (graduation, withdrawal or reduction in enrollment) before repayment begins.

#### **Federal Direct Graduate PLUS Loan**

Eligible students may borrow up to the cost of attendance less any amounts received from other sources from the Direct Graduate PLUS loan. Interest accrues at disbursement but may be capitalized while enrolled at least half-time. 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 4.248 per-

cent (subject to change due to federal budget cuts). Eligibility for the Direct Graduate PLUS loan is based on a credit review.

## Important Information About Financial Aid

(Page 19)

Updated. Fourth paragraph.

### Terms and Conditions of Financial Aid Awards

Award offers are contingent upon maintaining satisfactory academic progress toward completion of the degree program. Satisfactory academic progress reviews are performed at the conclusion of each semester. Failure to maintain satisfactory academic progress will result in the loss of financial aid funding. Detailed information about satisfactory academic progress may be found online at <http://view2.fdu.edu/admissions/graduate-admissions/graduate-financial-aid/graduate-satisfactory-academic-progress/>.

# Registration, Tuition and Billing Information

## Tuition and Fees

(Pages 20–22)

Updated.

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

Fees and charges are for the academic year 2018–2019 or for the specific service described, unless otherwise stated. New tuition and fees charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.

### Graduate Program Tuition

Maxwell Becton College of Arts and Sciences

All Programs (per semester, per credit).....\$1,272.00

Silberman College of Business,

All Programs (per semester, per credit).....\$1,334.00

Anthony J. Petrocelli College of Continuing Studies

All Programs (per semester, per credit).....\$1,272.00

University College: Arts • Sciences • Professional Studies

Master's Level: Education, History, Political Science, International Studies, Natural Sciences, Psychology (per semester, per credit).....\$1,272.00

University College: Arts • Sciences • Professional Studies

Master's Level: Allied Health, Computer Science, Electronic Commerce, Engineering, Management Information Systems, Medical Technology, Nursing, Systems Science (per semester, per credit).....\$1,272.00

University College: Arts • Sciences • Professional Studies

Doctoral Programs (per semester, per credit).....\$1,391.00

### Per Semester Installment

M.B.A. in Management for Executives\*.....\$40,570.00

M.B.A. in Health Sector Management specialization\*.....\$40,570.00

### Per Academic Year

Ph.D. in Clinical Psychology...\$41,286.00

Dissertation\*\*.....\$4,956.00

Internship Charge\*\*.....\$255.00

Dissertation Maintenance.....\$500.00

Psy.D. in School Psychology

(5-year Program).....\$41,286.00

Dissertation per credit.....\$1,391.00

Summer Internship Charge\*\*.....\$255.00

Dissertation Maintenance.....\$500.00

Psy.D. in School Psychology

(3-year Program)

per credit.....\$1,391.00

Summer Internship Charge\*\*.....\$255.00

Dissertation Maintenance.....\$500.00

Doctorate of Nursing Practice

per credit.....\$1,391.00

Program Fee.....\$230.00

Doctor of Pharmacy

Program.....\$39,551.00

Doctor of Pharmacy Dual Degree

Program (M.S./M.H.S./M.A. Track).....\$41,912.00

Doctor of Pharmacy Dual Degree

Program (M.B.A./M.P.A. Track).....\$44,273.00

E-learning Fee

(per year).....\$1,298.00

Student Services Fee

(per year).....\$335.00

Wroxton College..... Tuition per credit is based on the student's program of study

### Per Summer Session\*\*\*

Wroxton College..... Tuition per credit is based on the student's program of study

### Fees per Academic Year

Matriculation maintenance:

Master's Program,

per semester.....\$138.00

Proficiency Exam.....\$260.00

Application Fee.....\$50.00

Graduation Fee

Master's Degree.....\$240.00

Doctoral Degree.....\$485.00

Technology Fee

Full-time.....\$906.00

Part-time.....\$422.00

Health and Major Medical (Mandatory)\*

International Students (Full-time and part-time)

Full year.....\$1,581.00

Spring semester only.....\$980.00

Domestic (Full-time only)

Full year.....\$1,581.00

Spring semester only.....\$980.00

Additionally, there are other fees assessed for specific student requests such as thesis binding. For information on these and other fees, contact the Office of Enrollment Services.

All graduate students in residence will be assessed fees according to fee schedules of undergraduate residential students.

## Credit Cards

(Page 21)

Updated. Third paragraph.

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. Students may also pay by ACH (electronic check) with no fee assessed.

\*Total charges \$81,140.00 for 21-month M.B.A. in management for health and for executives health sector management specialization.

\*\*Per semester.

\*\*\*Does not include airfare or technology fee.

\*Mandatory only for full-time students, can be waived for domestic and international students with documentation of alternative coverage.



## Addendum

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# Student Life

## Family Educational Rights and Privacy Act (FERPA)

(Page 27)

Updated.

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; par-

ents 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.

## Policy on Prohibited Discrimination, Harassment and Related Misconduct

(Page 28)

Updated.

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 fairness 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://fd�.edu/hr/nondiscriminationandantiharassmentpolicy.pdf>.

## Clery Act

(Page 28)

Updated.

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

## Computer Facilities

(Pages 30–31)

Updated.

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 manages 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) manages three general-purpose computer labs in 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™ 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 a 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 lease 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

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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, 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 helpdesk 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 website at the following URL: [http://isweb.fdu.edu/policies/oirt\\_policy.html](http://isweb.fdu.edu/policies/oirt_policy.html).

### Research

(Pages 31–32)

Updated. Last paragraph.

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.



# Academic Programs

## Administrative Science (M.A.S.)

(Pages 38–41)

Updated.

### Graduate Certificate Programs

The following graduate certificate programs *are no longer being offered*: Displaced Persons Administration, European Studies and Administration, Information Literacies and Learning Environments and Public Relations Administration.

### Wroxton Experience — Global Perspective

MADS6615 Global Leadership and MADS6627 Women's Leadership in Today's Global World *are no longer offered* at Wroxton College in England.

## Animation (M.A.)

New.

The Master of Arts (M.A.) degree in animation offers three concentrations (**3D character animation, video games and visual effects**) that center around gaining hands-on skills in the chosen concentration. This major is designed for students who possess an undergraduate degree from an accredited university, college or art school who are looking to further sharpen their skills and increase their understanding of the discipline. It accepts recent undergraduates, master's-level transfer students, working professionals who want to grow their animation skills, as well as people who desire a complete career change.

As a full-time student, this major is a 36-credit (one-year) degree that spans three semesters. The fall and spring semesters are attended in-residence and the summer semester is completed online. Part-time students may attend courses over multiple years until the required 36 credits are completed.

Some courses in this program require basic prerequisite skills. If students do not possess the prerequisite skills upon entry they should acquire them independently or by completing undergraduate course(s) either prior to entering the program or while in the program. A candidate for admission is encouraged to make a personal appointment with an admissions counselor in order to discuss admission eligibility, education plans and/or take a campus tour. Prospective students may also arrange a meeting with the animation program director to discuss the curriculum options and tour the animation facilities.

## Admissions

M.A. in animation degree applicants must digitally submit a portfolio of 10–15 creative pieces as part of the application process. Acceptance is based on the quality of the work as well as meeting all of the other academic admission requirements of the University. The review committee is looking for work that is original in concept and content and will evaluate the portfolios to determine if the applicant qualifies to enter the program based on their artistic skills. If the submitted work infringes on copyright laws or is copied from other sources the applicant will be denied admission.

### Submit Portfolio

Email robinb@fd�.edu, and we will reply with login information to our cloud to upload your portfolio pieces.

### Graduate Admissions

No standardized testing is required.

### Requirements

1. Completed FDU Graduate Admissions application.
2. Bachelor's degree from an accredited college or university with a minimum cumulative grade point ratio (CGPR) of 2.70 (applicants with a CGPR of less than 2.70 may be admitted on probation).
3. Official undergraduate and graduate transcripts from all colleges and universities attended.
4. Digital portfolio.
5. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student's strengths and abilities).
6. Personal statement.
7. Résumé or curriculum vitae.

Upon entry, students select one of these concentrations to be their area of focus.

### 3D Character Animation Concentration

In this concentration, students give personality and emotion to digital 3D characters. Through the use of software techniques and acute observation skills, they show their ability to portray convincing and engaging performances in their animated characters and creatures.

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## Required Courses (18 credits)

	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 (18 credits)

Six 3-credit ANIM5000- or higher-level courses

## Video Games Concentration

In this concentration, students design and create animations that are intended to be utilized in video games and interactive media. They learn how to optimize the visual data, bearing in mind the limitations of the platform that will be delivering it, in that the device will be dynamically rendering the incorporated assets in real time.

## Required Courses (18 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 (18 credits)

Six 3-credit ANIM5000- or higher-level courses

## Visual Effects Concentration

In this concentration, students animate illusions and tricks of the eye to simulate imagined events in stories and computer-generated environments. Along with enhancing and manipulating digital imagery created in a variety of 3D and 2D software programs, they also learn to integrate and composite believable components and visual effects into live-action footage.

## Required Courses (18 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 (18 credits)

Six 3-credit ANIM5000- or higher-level courses

## Other Animation Electives

ANIM5100	History of Animation and Special Effects
ANIM5200	History of Video Games
ANIM5600	Advanced 3D Layers in After Effects®
ANIM5750	3D Character Modeling
ANIM5850	Advanced Digital 2D Animation
ANIM5900	Expressions and Scripting in After Effects®
ANIM6700	Animating Fluids
ANIM6805	Motion Tracking
ANIM6900	Digital 2D Game Creation
ANIM7100	3D Character Animation – Weight, Overlap and Follow Through
ANIM7200	3D Character Animation – Emotion and Personality
ANIM7250	Lip-Syncing
ANIM7300	Animation with Hair/Fur
ANIM7400	Animation with Cloth
ANIM7425	Motion Capture
ANIM7525	Virtual Reality
ANIM7550	Internship I
ANIM7600	Video Game Team Project
ANIM7650	Thesis I
ANIM7700	Faculty/Student Research I
ANIM7750	Thesis II
ANIM7775	Internship II
ANIM7805	Faculty/Student Research II
ANIM7850	Thesis III
ANIM7900	Animation Career Preparation

## Course Descriptions

See “Course Offerings,” pages xi–xiv.

# Animation (M.F.A.)

New.

A Master of Fine Arts (M.F.A.) is the terminal degree in animation. FDU’s M.F.A. in animation degree offers three concentrations (**3D character animation, video games and visual effects**) that center around gaining intensive hands-on skills in the chosen concentration. This major focuses on increasing practical, visual and creative skills to the highest level and provides students an opportunity to enhance their portfolios using 21st-century media and technologies. It also offers students the opportunity to participate in group projects and requires them to execute rigorous, in-depth thesis projects that demonstrate the skills learned in all of the classes in the curriculum. Upon completion, the thesis projects are exhibited in a public venue. Additionally, M.F.A. students prepare portfolios and other materials necessary for job applications and interviews. Before exiting the program, they are required to present their portfolios via mock interviews to a panel of professionals who will review, critique and provide feedback on their work.

This major accepts recent undergraduates, master’s-level transfer students, working professionals who want to grow their animation skills as well as people who desire a complete career change. As a full-time student, this major is a 60-credit (two-year) degree that spans six semesters. The fall and spring semesters are attended in-residence and the summer semesters, as well as the thesis courses, are completed online. Part-time students may attend courses over multiple years until the required 60 credits are completed. Upon entry, students select one of these concentrations to be their area of focus.

## Admissions

M.F.A. in animation degree applicants must digitally submit a portfolio of 10–15 creative pieces as part of the application process. Acceptance is based on the quality of the work as well as meeting all of the other academic admission requirements of the University. The review committee is looking for work that is original in concept and content and will evaluate the portfolio.

# Addendum

lios to determine if the applicant qualifies to enter the program based on their artistic skills. If the submitted work infringes on copyright laws or is copied from other sources the applicant will be denied admission.

### Submit Portfolio

Email robinb@fd.edu, and we will reply with login information to our cloud to upload your portfolio pieces.

### Requirements

1. No standardized testing is required.
  2. Completed FDU Graduate Admissions application.
  3. Bachelor's degree from an accredited college or university with a minimum cumulative grade point ratio (CGPR) of 2.70 (applicants with a CGPR of less than 2.70 may be admitted on probation).
  4. Official undergraduate and graduate transcripts from all colleges and universities attended.
  5. Digital portfolio.
  6. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student's strengths and abilities).
  7. Personal statement.
  8. Résumé or curriculum vitae.
- Upon entry, students select one of these concentrations to be their area of focus.

### 3D Character Animation Concentration

In this concentration, students study in-depth techniques that focus on every aspect of animating characters. Through the use of software techniques, acute observation skills and motion-capture technology, they master the skills needed to portray a high level of detail in animating believable characters and creatures.

#### Required Courses (36 credits)

	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

	Credits
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 (24 credits)

Eight 3-credit ANIM5000- or higher-level courses

### Video Games Concentration

In this concentration, students design and create animations that are intended to be utilized in video games, virtual reality and interactive media. They learn how to optimize the visual data, bearing in mind the limitations of the platform that will be delivering it, in that the device will be dynamically rendering the incorporated assets in real time.

#### Required Courses (36 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
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 (24 credits)

Eight 3-credit ANIM5000- or higher-level courses

### Visual Effects Concentration

In this concentration, students animate illusions and tricks of the eye to simulate imagined events in stories and computer-generated environments. Along with enhancing and manipulating digital imagery created in a variety of 3D and 2D software programs, they also learn to integrate and composite believable components and visual effects into live-action footage.

#### Required Courses (36 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
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 (24 credits)

Eight 3-credit ANIM5000- or higher-level courses

### Other Animation Electives

ANIM5100	History of Animation and Special Effects	
ANIM5200	History of Video Games	
ANIM5600	Advanced 3D Layers in After Effects®	
ANIM5750	3D Character Modeling	
ANIM5850	Advanced Digital 2D Animation	
ANIM5900	Expressions and Scripting in After Effects®	
ANIM6900	Digital 2D Game Creation	
ANIM7100	3D Character Animation – Weight, Overlap and Follow Through	

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ANIM7200	3D Character Animation – Emotion and Personality
ANIM7300	Animation with Hair/Fur
ANIM7400	Animation with Cloth
ANIM7550	Internship I
ANIM7700	Faculty/Student Research I
ANIM7775	Internship II
ANIM7805	Faculty/Student Research II

## Course Offerings

*Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate department chair.*

## Animation

School of the Arts

### ANIM5100

3 Credits

#### History of Animation and Special Effects

Students investigate and analyze the history of special effects and techniques while applying the understanding to modern-day visual effects and animation. Starting within-camera methods, this course covers topics that include traditional stop motion, camera-motion control, matte paintings, models and miniatures. Students also explore modern computer-generated visual effects, animation, compositing and production techniques.

### ANIM5200

3 Credits

#### History of Video Games

With the earliest video games surfacing in the 1950s, where they were primarily created as experimental projects at colleges and in tangent with big company research, this course teaches how games have developed over the years. Students learn how video gaming gained conventional popularity in the 1970s and 1980s, when arcade games, gaming consoles and home computer games became available to the general public. In this course students discover how video gaming evolved to become a widespread form of entertainment and a slice of contemporary culture throughout the world.

### ANIM5300

3 Credits

#### Storytelling

This course teaches students how to write short animated stories that vividly create an intense experience for the reader through plot, structure, conflict, crisis points and climax. Students then convey those stories, by showing rather than telling, through producing sketched storyboards and pre-visualization animatics. They brainstorm together by arranging and rearranging the sketches in order to evoke a stronger narrative based on their classmates' input and feedback. Through this process, students consider modifications in their storylines as well as

additional scenarios which contribute to the enhancement of their ideas. Writing biography profiles that bring the story's characters to life is also covered in this course.

### ANIM5400

3 Credits

#### Character Design

Character design begins during the initial stages of the development of animated films and video games and plays a critical part in the creation and success of those pieces. In order to bring their characters to life, students in this class learn the process of designing imaginative original characters by sketching and assembling model sheets. These documents are routinely used in the industry to aid in standardizing the look, postures and personality of an animated character.

### ANIM5500

3 Credits

#### Digital 2D Animation

2D animation generates movement in a two-dimensional imaginative space. Students in this course learn both the creative and technological skills necessary for animating characters and backgrounds in digital two-dimensional worlds. Creating bitmap and vector graphics using software programs are also covered in this course.

### ANIM5600

3 Credits

#### Advanced 3D Layers in After Effects®

When a 3D layer is created in After Effects® it gains additional properties such as z-depth, material options, light, shadows and cameras. Students in this class expand their 3D skills to create the types of compelling animations that people are accustomed to seeing nowadays. They learn to transform 3D layers relative to the coordinate space of the composition and customize the space to push the visuals to a higher level. Experimenting with adding effects and masks to 3D layers, compositing 3D layers with 2D layers and creating and animating cameras and lights are also covered in this course. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

### ANIM5700

3 Credits

#### Dynamic Effects and Particle Systems in After Effects®

A particle system is a technique in game physics, motion graphics and computer animation that uses a large amount of tiny graphics to mimic certain kinds of visually random events. These types of animations are very difficult to replicate with the usual rendering methods. Students in this class focus on pushing the envelope in creating realistic looking particle systems including fire, explosions, smoke, sparks, falling objects, clouds, fog, snow, rain, dust, stars and galaxies,

as well as imaginary graphic effects such as glowing trails and magic spells. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

### ANIM5750

3 Credits

#### 3D Character Modeling

Characters are an integral part of many film and video game projects. In this course, students learn to create segmented and seamless 3D characters based on concept art of their own unique characters using a variety of polygonal modeling techniques. Emphasis on creating clean optimized meshes is taught in this course.

### ANIM5800

3 Credits

#### Compositing in After Effects®

Compositing is the joining of visual elements from separate sources into a single image, usually to give the illusion that all those elements are parts of the same venue. This course teaches students how to replace designated parts of an image with other graphics in a convincing, seamless way so as to appear as if they are part of the original. Students learn to combine digital backgrounds with live-action sets and objects, as well as adding elements shot in small spaces to large virtual environments in order to augment the reality of the visuals. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

### ANIM5850

3 Credits

#### Advanced Digital 2D Animation

This course expands on the techniques learned in ANIM5500 Digital 2D Animation. The emphasis is on a more in-depth use of the vector animation toolset and the motion editor to produce engaging animations. Students learn attention to detail and study the subtleties necessary in creating polished, high-quality animated pieces. Prerequisite: ANIM5500 Digital 2D Animation.

### ANIM5900

3 Credits

#### Expressions and Scripting in After Effects®

Scripts automate monotonous tasks and perform complex calculations while expressions determine that a property equals something. This course teaches students how to use expressions to build connections between layer properties and to dynamically animate layers. They also learn to write scripts to assist in completing a series of commands and tell the software to perform a sequence of actions. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.



**ANIM6100****3 Credits****Digital Sculpting**

This class teaches digital sculpting by learning how to create realistic 3D characters using industry-standard applications. The focus is on anatomy, form and proportion while learning how to add a high level of detail to polygonal meshes utilizing the software tools. Texture painting is also discussed and taught through a variety of comprehensive demonstrations, exercises and assignments. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling or permission of program director.

**ANIM6150****3 Credits****3D Character Texturing**

Textures give the appearance of compound surfaces that reflect lighting as well as displaying the attributes and detail found in the materials, coloring and shading. In this class students learn about the various types of textures and finishes that can be applied to their 3D characters. They create custom texture maps and also learn how to control how they are applied to the surface of their character models using various methods such as the unwrapping and composite-mapping techniques. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling or permission of program director.

**ANIM6300****3 Credits****3D Character Animation**

Study 3D character animation techniques applied to seamless 3D characters, skinning and facial morphing. Focus on the details of secondary motion, follow through and asymmetrical poses to emulate realistic body motion and facial expression. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

**ANIM6350****3 Credits****3D Particle Systems and Effects**

Students learn to create and control various types of 3D particle systems to be able to 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 or permission of program director.

**ANIM6400****3 Credits****3D Animation for Games**

A video game animator's job is to portray the movements and behaviors that happen in the game. This course teaches students how to animate game behaviors, sequences and cut scenes in an effective way to maximize the use of a game engine's technology within the limitations of that particular platform. They learn how it

may be necessary to limit the amount of motion frames and the number of graphics to be displayed on the screen simultaneously. Because game animation is often a combination of a number of different kinds of motions, students in this class learn to build and assemble libraries of reusable animations. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

**ANIM6600****3 Credits****Game Creation**

Students integrate their game ideas using a cutting-edge powerful rendering engine. This course emphasizes bringing characters and objects to life inside of a gaming environment. Students use the tools provided to create interactive graphic content while focusing reducing the time needed to create visually stunning games. Assembling scenes containing high-quality visuals, audio and realistic action that perform well on any platform are also covered in this course. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

**ANIM6700****3 Credits****Animating Fluids**

Fluid simulation is a computer animation technique used to produce lifelike animations of liquids such as water and sludge. These kinds of simulations range in difficulty from enormously time-consuming, high-end animations for film to real-time particle systems used in modern games. This course covers creating various types of fluid effects in both 3D space as well as in 2D post. Prerequisites: ANIM1750 Motion Graphics with After Effects® and ANIM2500 3D Computer Animation or permission of program director.

**ANIM6805****3 Credits****Motion Tracking**

Motion tracking is a cinematic practice that allows the addition of graphic elements into film footage with accurate size, location and movement in relation to the photographed elements in the scene. This course teaches students how to track the movement of a camera through live-action shots so that identical computer-generated camera moves can be duplicated using animation software. Students also learn how to composite animated elements into live-action shots so that they appear perfectly matched in perspective in order to look natural and seamless. Prerequisites: ANIM1750 Motion Graphics with After Effects® and ANIM2500 3D Computer Animation or permission of program director.

**ANIM6900****3 Credits****Digital 2D Game Creation**

This course teaches the game-creation process of combining 2D digital art and audio with game play, and instills how good planning plays an important role in video-game production. Students learn to understand the video-game production pipeline from the planning stage and level design, to creating sprites and graphic and audio assets, to assembling a prototype of a game.

**ANIM7000****3 Credits****Advanced 3D Character Animation**

This course continues to develop the artistic and technical skills necessary to become a successful character animator by focusing the critical principles of animation like weight, overlapping motion and subtleties through the use of animation layering and music simulation. Students also learn how to better show feelings of happiness, desolation and distress by articulating the personality and emotion of their animated characters to the audience. This class builds on the character rigging and animation skills learned in the previous character animation course. Prerequisite: ANIM6300 3D Character Animation.

**ANIM7100****3 Credits****3D Character Animation – Weight, Overlap and Follow Through**

Follow through and overlapping are techniques that help to produce more realistic movement that looks as if the character imitates the laws of physics. The achievement of believable motion and how the action follows through is frequently more necessary than the move itself to making an animation appear more convincing. In this course students analyze the subtleties of motion and learn to understand how if one body part stops other parts may overlap and follow through the leading motion, gradually coming to rest. They also learn to add weight, mass and moving holds to add life to breathing characters. Prerequisite: ANIM6300 3D Character Animation.

**ANIM7200****3 Credits****3D Character Animation – Emotion and Personality**

Emotion and personality are the most challenging parts of character animation, because it is essential that it portrays both subtlety and scope in what is being visually communicated to the audience. In this class students learn the skills, procedures and thought processes for animating expressive faces coordinated with body language. Through the use of a variety of techniques, the focus is on evoking thought, enthusiasm and emotion in their characters' actions. Prerequisite: ANIM6300 3D Character Animation.



# Addendum

## ANIM7250

3 Credits

### Lip-Syncing

Lip-syncing is the art of making an animated character appear to speak in a prerecorded track of dialogue. To make a character appear to speak involves figuring out the timings of the speech as well as the actual animating of the mouth to match the dialogue track. This course teaches students how to make a character appear to speak by use of manual timing as well as learning to use lip-syncing software. Prerequisite: ANIM6300 3D Character Animation.

## ANIM7300

3 Credits

### Animation with Hair/Fur

From feature films to broadcast TV, fur is now commonly seen in animations everywhere. In this course students learn how to apply fur and hair to their 3D characters and experiment with the software features to give it the qualities (such as styling, flyaway, clumping and kinking) that they envision. Applying dynamics, gravity, collision detection and external forces (such as wind) to the hair are also covered in this course. Prerequisite: ANIM6300 3D Character Animation.

## ANIM7400

3 Credits

### Animation with Cloth

In computer animation, cloth simulation refers to the production of soft-body objects that animate via flexible dynamics. As opposed to rigid-body animation, the shape of soft-body objects change and flex as they move. By learning specialized rendering properties that replicate real-world physics, students apply visually realistic clothing properties to their 3D characters. The focus is to enhance the realism of animated characters wearing flowing apparel. Prerequisite: ANIM6300 3D Character Animation.

## ANIM7425

3 Credits

### Motion Capture

This course teaches the process of recording human movement, captured by an array of sensors which are placed on the body in a variety of combinations. Students learn to use software that records the actions of live actors and then map that motion data to 3D character models so that it performs the same movements as the actor. Whether animating for film or games, the techniques learned in this class allow for increased motion testing because of the ability to quickly animate digital 3D characters. Prerequisite: ANIM6300 3D Character Animation.

## ANIM7500

3 Credits

### Advanced Game Creation

This course expands upon the techniques learned in ANIM6600 Game Creation. Students

learn to add their own tools and to enhance performance while increasing graphic quality. This course also covers how to use the high-end customizable game-engine tools to quickly export visually exciting, fully produced games. Prerequisite: ANIM6600 Game Creation.

## ANIM7525

3 Credits

### Virtual Reality

Virtual reality (VR) is the use of computer technology to create simulated environments where users are immersed in and able to interact with 3D worlds. In this course students learn to simulate a user's physical presence with imaginary environments in a way that allows them to interact with it through the use of state-of-the-art VR headsets. The goal is to simulate breathtaking sensory experiences by creating 3D environments and animations, as well as incorporating audio and precise motion tracking that transports users into worlds that are beyond the imagination. Prerequisite: ANIM6600 Game Creation.

## ANIM7550

3 Credits

### Internship I

Students work at a company or organization between five and 20 hours per week, filling an animation, interactive media or video-game role. Internships may be paid or unpaid. Prerequisite: permission of program director.

## ANIM7600

3 Credits

### Video Game Team Project

In the industry, video games are primarily produced by a team of people. The students in this class work in groups to design and create their own video game. The type of game and the role that each person fills are determined by the group with the oversight of the professor. Prerequisite: permission of program director.

## ANIM7650

3 Credits

### Thesis I\*

In the M.F.A. thesis, students write, design and produce all aspects of a comprehensive project which exhibits everything learned in the graduate program to date. Thesis I lays the groundwork for the project by developing the story as well as the previsualization pieces that are typically produced when creating an animated film or game. These include writing project treatments and drafting story proposals, character development, writing and revising scripts, sketching story concepts, developing refining detailed storyboards, audio recording, developing sound effects, assembling and editing animatics containing sketch motions and audio and the initial steps of creating graphic elements and 3D models. Each phase of the development undergoes a number of rigorous in-class critique

sessions, after which improvements are implemented. Throughout the course students maintain a journal of their processes, successes, problems and challenges. Before the student can continue on to ANIM7750 Thesis II, the project must be approved by the professor and all of the requirements listed above must be completed. Prerequisite: permission of program director.

## ANIM7700

3 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 program director.

## ANIM7750

3 Credits

### Thesis II\*

In this course students finish building their digital 3D character models, 3D environments and digital props for their final piece. Designing, creating and mapping textures, as well as lighting and camera placement to be used in the various 3D scenes in their thesis project are completed in this class. After these elements are prepared, the students begin animating their characters and other models within the 3D scenes. As each element and animation is developed and refined, they go through a number of in-class critiques, after which improvements are implemented based on that feedback. As rough previews and refined motion tests are rendered, they are inserted into the animatic that was produced in ANIM7650 Thesis I which continues to grow and progress the digital previsualization of the piece. Throughout the course students update their journal. At the end of this course the professor evaluates each student's project. If the status of the project is approved, the student is permitted to move on to ANIM7850 Thesis III. Prerequisite: ANIM7650 Thesis I and permission of program director.

## ANIM7775

3 Credits

### Internship II

Students work at a company or organization between five and 20 hours per week, filling an animation, interactive media or video-game role. Internships may be paid or unpaid. Prerequisite: permission of program director.

## ANIM7800

3 Credits

### Faculty/Student Research II

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: permission of program director.

\*Online course.

\*Online course.

**ANIM7850****3 Credits****Thesis III\***

In this course students finish and refine all of the animated scenes for the project that they began in the previous thesis courses, and the process of 3D printing will also be taught. Based on in-class critiques, a number of missing pieces may need to be created in order to complete or enhance the story, or scenes may need to be revised and re-rendered. Paying close attention to the amount of time needed to complete all of the renders, the students render the final high-res motion files for the each scene upon its completion. As they are assembling the high-res files into the final edit, they will generate and composite post effects with the finished renders; enhance lighting; implement color correction; polish audio (narration, voice-over, sound effects); complete the final video edit and post-production; and design and animate the movie title and credits. In addition, the students write papers discussing their research and development phases, processes, successes, problems and challenges experienced throughout producing their project based on the journal that they have been maintaining. The papers also contain a final analysis of their project. At the end of the semester, students present their thesis projects to the public. In preparation for this, the students design display boards and tables to creatively exhibit their original concept sketches, storyboards, high-res computer printouts of various parts of their project and 3D prints of their characters and environments. The final animations will be projected on a large screen at the thesis event. In order to complete the course, students must submit their journal, written proposal, written script, concept sketches, storyboards, all of their pre-visualization pieces and their finished project, along with the written paper and the project analysis to the professor and program director for review. Prerequisite: ANIM7750 Thesis II and permission of program director.

**ANIM7900****3 Credits****Animation Career Preparation**

This is the capstone course to be taken in the final semester prior to graduating the program. Students present the animation work that they produced in all of their animation courses in the program to the class and discuss their professional interests and goals. Undergoing a series of follow-up critiques from their classmates, students learn to assemble and revise polished professional demo reels highlighting the strongest segments of each of their projects, focused on meeting their career goals. Based on additional critical feedback sessions, students design personalized logos that will be used to market themselves as professional animators. Personalized business cards, résumés, letters of introduction and follow-up letters are then written and designed, emulating the persona of their final logo. In order to present their demo reel and promote their animation skills to prospective employers, students learn how to plan (content, navigation, graphic design) and develop visually and technically impressive portfolio websites, exhibiting their own individual artistic style by following through with the branding established in the final logo design. How to implement and design social media presences and utilize other online avenues to market their skills and find work are also covered in this course. Prerequisite: permission of program director.

**Biology (M.S.)****Florham Campus***(Pages 53–56)*

The M.S. in biology program at the Florham Campus has been suspended.

\*Online course.

# Addendum

## Chemistry (M.S.)

### Metropolitan Campus

(Page 88)

Updated.

### Informatics Concentration

#### Chemistry Core Requirements (12 credits)

	Credits
CHEM6525 Physical Chemistry.....	3
CHEM6673 Physical Organic Chemistry.....	3
CHEM6781 Biochemistry	
or	
BIOL6733 Enzymology.....	3
CHEM7713 Structural Inorganic Chemistry.....	3

### Pharmaceutical Chemistry Concentration

#### Chemistry Core Requirements (12 credits)

CHEM6525 Physical Chemistry.....	3
CHEM6673 Physical Organic Chemistry.....	3
CHEM6781 Biochemistry	
or	
BIOL6733 Enzymology.....	3
CHEM7713 Structural Inorganic Chemistry.....	3

#### Pharmaceutical Chemistry Concentration Requirements (12–13 credits)

BIOL6758 Advances in Pharmacology.....	3
BIOL6845, BIOL6846 Molecular Biology Techniques (Lecture and Laboratory).....	4
or	
CHEM7737 Chemical Analysis of Pharmaceuticals.....	3

Credits

CHEM6752 Drug Design and Discovery or	
CHEM6755 Medicinal Chemistry.....	3
CHEM6754 Drug-delivery Systems.....	3

#### Free Electives (9 credits)

9 credits selected from any 5000-level or higher chemistry (CHEM), cosmetic science (COSC), biology (BIOL), marketing (MKTG), pharmaceutical management (PHAR), mathematics (MATH), management (MGMT) or physics (PHYS) course including:

CHEM6801 Research and Thesis.....	3
CHEM6806 Graduate (Non-thesis) Research in Chemistry.....	3
Graduate Elective selected from any 5000-level or higher CHEM, COSC, BIOL, PHAR or MATH.....	3

## Film (M.F.A.)

New.

The program will begin in May 2019 with the first residency period.

The low-residency Master of Fine Arts (M.F.A.) in film will offer studies in **producing, screenwriting, directing, cinematography and editing.**

Internship experiences and workshops led by professionals are built into the program. Situated near New York City and in the heart of a vibrant media market, FDU's M.F.A. in film students and graduates will be able to hone their skills and be better prepared to obtain work in the field.

FDUFilm's approach to M.F.A. study is unique. Distance learning is embraced as a primary method of delivering the curriculum. The student will alternate terms in-residence, and terms with distance learning, so that the program is two years in length and includes four residencies.

### Admissions Criteria

An undergraduate degree in film, communication, writing or theater is advised. Students who have shown significant talent or professional experience in other art forms, will also be given serious consideration. Prior technical experience in film is not required. Prospective students are required to submit portfolios of previous work — written or cinematic — to be reviewed by the Film Faculty and Admissions Committee.

### Admissions Requirements

1. An undergraduate degree is required for admission. Students holding undergraduate degrees from an accredited four-year institution in the U.S. or abroad may apply.

2. Two letters of recommendation, as well as a portfolio, are required for acceptance into the M.F.A. program in film.

3. Portfolios may be submitted digitally via an online link to YouTube, Vimeo or through a file-sharing service.

4. Portfolios may contain live-action film material, screenplays or other written narrative work. Work from other disciplines can be submitted; be it animation, playwriting, photography, graphic design or fine arts. Submitted portfolios will be reviewed and evaluated as part of the admissions process.

5. Applicants should have a cumulative grade point ratio of 2.75 or better on a 4.00 scale.

6. Standardized tests (GRE) are not required for admission.

Complete information regarding admission can be found at Apply Now for Graduate Admission (<http://view2.fdu.edu/admissions/graduate-admissions/apply-now-for-graduate-admission-at-fdu>).

## Advising

The M.F.A. program will be housed within the School of the Arts, which houses the undergraduate programs in film, animation, graphic design, theater arts and fine arts. Student advising will be conducted by the co-directors of the program and by professional mentors.

Specific to the M.F.A. in film program, undergraduate work and records will be reviewed. Any work-related experience will also be taken into consideration. While admission will not require the undergraduate major to have been in a film-related field, creativity demonstrated while an undergraduate or in professional work environments will be considered.

## Deadlines

Applicants can be considered for the University Provost's Graduate Scholarship if they meet the eligibility criteria.

Since new students must begin the program with a winter residency, applications must be received no later than September, in order to arrange transportation and prepare for the residency.

## To Apply

1. Email writing sample in PDF or MS Word format to [grad@fdu.edu](mailto:grad@fdu.edu). In the subject heading write "Application" and use the following guidelines:

- Be sure to paginate the document (top, right) and include name on every page.

- Admission is only to the M.F.A. in film program. However, students should indicate a particular area of interest from the following: screenwriting, producing, directing, cinematography or editing.

2. Complete the online application on the Graduate Admissions page. When completing the form please note:

- GRE scores are not required.
- All undergraduate transcripts are required.

- Note the area of interest. The M.F.A. program is housed at FDU's Florham Campus in Madison, New Jersey.

In making admissions decisions, the greatest weight is given to screenwriting samples, completed film projects, festival and professional recognition and employer recommendations.

Many graduate students are eligible for state and/or federal loans and aid. FDU's Financial Aid Office (974-443-8704) can assist with this.

Personal interviews are not normally required as part of the admissions process. However, prospective students should submit a portfolio to the M.F.A. in film program for review.

Prospective students may also arrange a meeting with one of the program directors to discuss program options and tour the film facilities.

Applicants to the program will be selected based on their qualifications and offered admission in a particular concentration (directing, cinematography, etc.).

## Curriculum

### Year 1

#### First Residency (4 Credits)

Meet mentors

Workshops

Write/produce short films and projects

Industry/guest lecturers

#### Term I (9 Credits)

Academic courses

Creative project

#### Second Residency (6 Credits)

Work with mentors

Workshops

Write/produce short films and projects

Work with crew on projects of increasing complexity and length

Industry/guest lecturers

#### Term II (12 Credits)

Academic courses

Creative project(s)

### Year 2

#### Third Residency (6 Credits)

Work with mentors

Industry/guest lecturers

Students are divided into production

teams to write, produce, shoot, edit and screen a finished short segment of thesis film

#### Term III (12 Credits)

Academic courses

Creative project(s)

Preproduction planning for thesis films (per craft)

#### Fourth Residency (8 Credits)

Produce thesis films (18-day extension to residency for second-year students)

#### Term IV (4 Credits)

Write self-evaluations

Thesis paper

- Directing — work with editor/music composer, post-sound design

- Cinematography — coloring

- Postproduction — editing, effects/credits, compositing and conforming

- Producing — festivals, distribution, marketing plan (2 credits)

## FDU Film Residency Workshops

- Coverage and Continuity in Film, Directing Commercials and Client-driven Productions

- The Importance of Casting, the Director and the Actor, Distributing Films

- Producing Commercials, Working with State and Regional Production Offices — Production Tax Incentives

- Working with Unions, Writing Comedy, Writer's Guild of America — Guest Workshops

- Producers: What Makes It Sellable, Cinematography — Lens Optics and New Items, Cinematography LED-lighting Technology

- Cinematography — Working with Grips, Editors — Postproduction Sound Design

- Editors — Approaches to Editing the Feature Film

## Course Offerings

*Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate school director.*

## Directing Curriculum

### First Year

#### Production I (Workshop)

Students will team up and form production groups. They will produce a short narrative project on digital video. Directing students must direct one project and assist on others as well as work as a crew member in order to strengthen on-set experience as well as contribute to the visual storytelling effort.



# Addendum

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## **Directing Workshop**

Directing students will study a multitude of directing styles, techniques and strategies all designed to develop a working sense of the narrative point of view. Included in this workshop are exercises and seminars that will explore narrative design, movement, composition, blocking, collaboration and continuity, with the particular needs of preparation and analysis for first-year productions.

## **The Art and Craft of Directing/ Dramatic Analysis**

This seminar presents a variety of topics relating to specialized aspects of directing, the directorial process, collaborations, directorial conventions, visual-storytelling preparation and other techniques and tools of the art and craft of directing.

## **Topics in Directing: Acting Scene Study**

A workshop for directing students that provides the basics of the actor's language and methods. The term focuses on acting fundamentals for a director's basic terminology, tools, methods and techniques, which are practiced through scene study and performance. A variety of individual acting methods are explored through scene work before the camera. Students learn how to communicate with actors to achieve performances consistent with the director's storytelling goals.

## **American Approaches to Film**

This seminar and screening series provides a broad survey of American cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts.

## **Year One Portfolio Review**

Upon review of the first-year work, faculty invite students to continue to the second year and candidacy for the Master of Fine Arts degree. The portfolio review is conducted by directing faculty through a formal review of each directing student, which results in a recommendation regarding future work in the program.

## **Second Year**

### **Thesis Production — Directing**

Building on the first-year production experience, the directing students must successfully fulfill all directorial preproduction, production and post-production responsibilities on a thesis production — a professionally executed short film or digital video project — which is evaluated by the faculty. Directors collaborate with project team members under the guidance of thesis production faculty mentors. Thesis production teams participate in special development, pre-production and postproduction workshops. In

addition, teams visit discipline workshops on a scheduled basis over the course of preproduction, production and postproduction in order to gain a thorough understanding of the collaborative interdisciplinary creative process. If a directing student is approved by faculty to direct more than one thesis production, the additional project(s) will be considered an additional thesis requirement for completion of the degree.

### **Advanced Directing Workshop: Techniques in Directing for Film and TV**

This workshop is a series of exercises in staging and scene work that require the directing student to explore performance for the camera and visual storytelling with increasing complexity. The work is analyzed with a senior mentor. This component of the workshop continues the directorial emphasis on performance within the visual storytelling context.

### **Thesis Portfolio — Directing**

This component embraces the thesis production as a learning and teaching medium through a series of required presentations by the students and their project teams. These presentations are analyzed by the workshop. In addition, a variety of topics and experiences are presented that are designed to broaden the student's understanding of the art of direction and performance.

### **World Approaches to Film**

This second-year seminar and screening series provides a broad survey of international cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts. Active participation and attendance is required.

## **Screenwriting Curriculum**

### **First Year**

#### **Production I**

A workshop wherein students team to form production groups that produce a short narrative project on digital video. Screenwriting students contribute short screenplays to be produced as well as work on a crew in order to strengthen on-set experience and understanding of the physical production process of visual storytelling.

#### **Screenwriting Workshop and Conference**

The screenwriting workshop emphasizes telling a story cinematically in terms of action and the reality of characters portrayed. The difference between the literary and visual medium is explored through individual writing projects and group analysis.

### **The Art and Craft of Screenwriting/ Dramatic Analysis — Acting Techniques for Screenwriters**

A topic-based seminar that examines fundamental conventions in screenwriting story and character development, basic structure, characteristics of established genres, particularities of television forms and related areas. The first-term workshop also provides an overview of fundamental terminology, resources, tools and techniques that are essential to the professional screenwriter. Basics of screenwriting in terms of form and structure are outlined in a series of illustrated lecture presentations. The second-term workshop provides screenwriting students with a basic introduction to acting and performance in order to inform the writing process. Staged readings of scenes for the students' work show how the written word transitions from page to performance.

### **The Great Screenplays**

This seminar studies the "great" screenplays. Various genres are studied through close examination of works acknowledged as classics. How these great works have withstood the test of time and connected with audiences across social and cultural barriers will be a central focus of the seminar.

### **Master Seminars — Screenwriting**

The master seminars present leading figures from all aspects of the motion picture, television and digital media arts. The seminars are designed to provide students with a broad and varied perspective on the contemporary motion picture arts and profession.

### **American Approaches to Film**

This seminar and screening series provides a broad survey of American cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts.

### **First-year Portfolio Review**

Upon review of the first-year work, faculty invites students to continue to the second year and candidacy for the Master of Fine Arts degree. The portfolio review is conducted by screenwriting faculty through a formal interview with each screenwriting student, which results in a recommendation regarding future work in the program.

## **Second Year**

### **Advanced Production: Writing for the Thesis Film**

A continuing production workshop wherein students team to produce two short narrative projects. First-year screenwriters must contribute to the collaborative process and contribute writing and rewriting support, as well as crew support.



### **Advanced Art and Craft of Screenwriting: Second-year Workshop**

This workshop has two components: a lecture component focusing on practical tools and techniques of the screenwriting creative process and a participatory workshop focusing on the development of effective pitching tools and techniques for the screenwriter. Both components seek to provide practical information and experience of the contemporary professional practice of screenwriting. Each component is evaluated separately and is allocated 1 credit hour per term.

### **Creating the Pilot for TV and Original Content**

This workshop focuses on primary contemporary television forms such as the hour-long dramatic teleplay. The workshop provides basic instruction in the development and writing of these forms through a variety of individual and group projects.

### **Screenwriting Thesis Portfolio**

Each screenwriting student is required to present a portfolio of completed second-year work, which is evaluated and approved for graduation by the faculty. The portfolio is developed in the Advanced Screenwriting Workshop and consists of two written works. If a screenwriting student is approved to team on a thesis production, the work on the production will be considered a required component of the screenwriting student's thesis portfolio. After the portfolio of second-year work has been reviewed, each student is required to present a thesis script. A thesis script must be a feature-length screenplay. A thesis script is not a thesis film; it cannot be a TV script. Co-written material is not acceptable.

### **World Approaches to Film**

This second-year seminar and screening series provides a broad survey of international cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts.

### **Producing Curriculum**

#### **First Year**

#### **Production I**

A workshop wherein students team to form production groups, which produce a short narrative project on digital video. Producing students produce and coordinate projects as well as work as crew in order to strengthen on-set experience as well as contribute to the visual storytelling effort. First-year producers must successfully fulfill all preproduction, production and post-production responsibilities on at least one narrative short project. If for any reason producing students produce more than the minimum required, they are expected to fulfill all responsi-

bilities for each production, and will be evaluated accordingly.

#### **Producing Workshop**

A survey of the role and work of the contemporary producer from idea to script through financing and physical production to distribution and exhibition. The dynamics of creative and entrepreneurial producing in all media are outlined in the context of the motion picture and television profession. First-year productions are deconstructed and analyzed by producing faculty and students, addressing issues of both creative and physical production.

#### **The Art and Craft of Producing: Line Producing/Dramatic Analysis**

This workshop provides a survey of production management and line producing. From script breakdown and production preparation to post-production supervision and delivery, the physical production process is defined. The basic terminology, tools and techniques of this crucial process are presented with frequent references to the cycle productions. The second term turns the focus to acting techniques. Preparation for the production of the following year's thesis projects is also a key aspect of the workshop.

#### **American Approaches to Film**

This seminar and screening series provides a broad survey of American cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts. Active participation and attendance is required.

#### **Script and Coverage**

This course will provide students for the real world of Hollywood — how to work with writers, pitch a story, how to analyze scripts and become better writers by doing notes and coverage. Scripts will be discussed from both their creative and selling standpoints. Guests from different disciplines will discuss their areas of expertise, such as a book agent talking about how to option a book, a writer presenting his own produced script and discussing how the picture got made, etc.

#### **First-year Portfolio Review**

Upon review of the first-year work, faculty invites students to continue to the second year and candidacy for the Master of Fine Arts degree. The portfolio review is conducted by faculty through a formal interview with each producing student, which results in a recommendation regarding future work in the program.

#### **Second Year**

#### **The Art and Craft of Producing: Part 2 — Creative Producing; Part 2 — Understanding Editing for Creative Producing**

In this detailed exploration of low-budget indie filmmaking, students will learn techniques and

theories examining all phases of the process from development, financing, casting, production, postproduction to distribution and festivals. Topics include the script, pitching, preparing a financial proposal, relationship between producers and heads of departments, completing the movie and marketing. Examples will include raising the financing; deal making with distributors (foreign and domestic); the actual production period, which includes choosing the right locations (per financial incentives and rebates); casting "names"; dealing with challenges during production; and then the delivery, the sale and decisions about festivals and exposure. Guest speakers will be invited per availability.

#### **Advanced Producing Workshop: Storytelling and Show Running for TV**

This workshop is led by producing faculty and embraces the thesis production as a primary teaching tool and learning experience. Project teams participate in the workshop over the course of development, preproduction and post-production in order to present and discuss key producing issues relating to the projects. In addition, the workshop presents a variety of topics and experiences that are designed to broaden the student's understanding of cycle producing. In particular, the process of creative development and management of the creative process are examined through a variety of lectures and presentations. Marketing and distribution are explored with an eye to the audience for whom films and television programs are made.

#### **Advanced Business of Producing**

This seminar presents a variety of topics relating to specialized aspects of production financing, international financing and production, business practices and other essential components of entrepreneurial producing. The first term focuses on legal and business affairs, aspects of producing and deal negotiating through a series of role-playing exercises. The second term focuses on the selling of projects and the key relationships that are required in this area.

#### **Physical Production — Thesis**

Using knowledge gained from first-year physical production classes and cycle film production, this course will augment physical production skills in preparation for thesis production and will lay the groundwork for the advanced course in feature film scheduling and budgeting. The class will be divided into teams with no less than two students on each team. Each student will create a production plan to include a schedule and a budget for the thesis project of his or her teammate. Knowledge and skills will be acquired from classroom instruction, guest speakers, demonstrations, hands-on computer work and one-on-one consultations with working professionals.

# Addendum

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## **Thesis Portfolio — Producing**

Each producing student prepares a personal portfolio of work demonstrating his or her producing skills and talents. The portfolio is a culminating summary of the experience, which is reviewed, evaluated and approved for graduation.

## **World Approaches to Film**

This second-year seminar and screening series provides a broad survey of international cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts. Active participation and attendance is required.

## **Cinematography Curriculum**

### **First Year**

#### **Production I**

A workshop wherein students team up to form production groups that produce a short narrative project on digital video. Cinematography students shoot and camera assist on projects as well as work as crew in order to strengthen on-set experience and contribute to the visual storytelling effort. Cinematographers also join production team members in several collaborative sessions devoted to story and screenplay development in advance of production. If for any reason cinematographers shoot more than the minimum required, they are expected to fulfill all responsibilities and will be evaluated accordingly.

#### **The Art and Craft of Cinematography**

This workshop is composed of a lecture and a studio component. A detailed examination of the on-set protocols, tools and practices of cinematography, including the operation and procedures of cameras and lighting equipment, laboratory procedures and processes, optical effects and specialized equipment. Fundamental equipment procedures, camera mechanics, interior and exterior lighting, grip equipment, preproduction, planning, composition, optics, electrical and safety, exposure, color, sound and collaboration are all addressed. The completion of photographic assignments and digital video projects develop visual storytelling skills. Students also work in film formats through individual and group exercises. The class includes tours of cinematography-related companies, hands-on demonstrations, screenings and guest speakers.

#### **History of Cinematography**

The history of world cinematography is presented in this bimonthly three-hour session, which rotates with the HLMS (Harold Lloyd Master Seminar) sessions. Films of historic cinematographic significance are presented and discussed to illustrate the technical and creative history of the tools of cinematographer's craft from early days to the digital age. Writing assignments and

photographic assignments are used to underscore course insights.

## **Seminars in Cinematography**

The seminars present leading figures from all aspects of the motion picture, television and digital media arts. The seminars are designed to provide students with a broad and varied perspective on the contemporary motion picture arts and professions.

## **American Approaches to Film**

This seminar and screening series provides a broad survey of American cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts. Active participation and attendance is required.

## **Year One Portfolio Review**

Upon review of the first-year work, faculty invites students to continue to the second year and candidacy for the Master of Fine Arts degree. The portfolio review is conducted by cinematography faculty through a formal interview with each cinematography student, which results in a recommendation regarding future work in the program.

### **Second Year**

#### **Thesis Production — Cinematography**

Building on the first-year production experience, cinematography students must successfully fulfill all director of photography responsibilities on a thesis production — a professionally executed short film or digital video project — which is evaluated by the faculty. Cinematographers collaborate with project team members under the guidance of thesis production mentor faculty. Thesis production teams participate in special development, preproduction and postproduction workshops. In addition, teams visit discipline workshops on a scheduled basis over the course of preproduction, production and postproduction in order to gain a thorough understanding of the collaborative interdisciplinary creative process.

#### **Advanced Art and Craft of Cinematography**

This seminar presents a variety of topics relating to specialized and advanced-level cinematography and visual effects tools and techniques. Guest professionals participate in the workshop on a regular basis to conduct specialized seminars and demonstrations as well as to provide feedback on student work.

#### **Advanced Cinematography Workshop**

With faculty advisement, cinematography students will plan, produce, shoot and analyze a set of scenes, as part of their thesis project, that will demonstrate creative and technical competencies. The scenes can be shot in film or video

medium and with other work will comprise a professional reel demonstrating the range of skills and talents of the individual student. In addition, each cinematography student is required to produce a visual essay that demonstrates competency in the medium.

## **World Approaches to Film**

This second-year seminar and screening series provides a broad survey of international cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts. Active participation and attendance is required.

## **Editing and Postproduction Curriculum**

### **First Year**

#### **Production I**

A workshop wherein students team up to form production groups which produce a short narrative project on digital video. Editing students edit two projects. If for any reason editing students edit more than the minimum required, they are expected to fulfill all responsibilities on each project, and will be evaluated accordingly.

#### **Editing Workshop**

Editing students analyze and assemble dramatic scenes under a variety of conditions and narrative strategies. These are analyzed by faculty and students. Editing theories, techniques and procedures, issues of continuity, effects, movement and sound are examined as they relate to the fundamentals of cinematic montage and visual storytelling. All first-year productions are deconstructed and analyzed by faculty in order to develop a versatile and confident understanding of editorial principles and techniques.

#### **The Art and Craft of Editing/Dramatic Analysis**

The tools and techniques of the editor's craft are presented through a series of topic-based seminars, workshops and hands-on training sessions.

## **Approaches to Film**

This seminar and screening series provides a broad survey of American cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts.

## **Year One Portfolio Review**

Upon review of the first-year work, faculty invite students to continue to the second year and candidacy for the Master of Fine Arts degree. The portfolio review is conducted by editing faculty through a formal interview with each editing student, which results in a recommendation regarding future work in the program.

**Second Year****Thesis Production — Editing**

Building on the first-year production experience, editing students must successfully fulfill all editorial responsibilities on two thesis productions — professionally executed short film and digital video projects — which are evaluated by the faculty. Editors collaborate with project team members under the guidance of thesis production faculty mentors. Thesis production teams participate in special development, preproduction and postproduction workshops. In addition, teams visit discipline workshops on a scheduled basis over the course of preproduction, production and postproduction in order to gain a thorough understanding of the collaborative interdisciplinary creative process.

**Advanced Art and Craft of Editing**

This seminar presents a variety of topics relating to specialized aspects of editing and postproduction. Picture and sound postproduction techniques and tools are presented through a progression of training that builds upon and advances the first-year experiences.

**Thesis Portfolio — Editing**

Each editing student prepares a personal portfolio of work demonstrating his or her editorial skills and talents. The portfolio is a culminating summary of the experience, which is reviewed, evaluated and approved by the faculty for graduation.

**World Approaches to Film**

This second-year seminar and screening series provides a broad survey of international cinema in order to explore the aesthetic, cultural, historical and social phenomenon of the motion picture arts.

**Curriculum for All Areas of Specialization****Master Seminars**

The master seminars present leading figures from all aspects of the motion picture, television and digital media arts. The seminars are designed to provide students with a broad and varied perspective on the contemporary motion picture arts and profession.

**Internship Practicum**

All aspects of the internship are an integral part of the student's discipline curriculum. The objective of this course is to provide working experience in the approved film/TV profession as it pertains specifically to the student's discipline and degree requirements. Specific duties and requirements will be outlined and supervised by the faculty mentor. This internship qualifies an international student for Curriculum Practical Training; approval must be obtained by the international adviser as well as the

faculty mentor and dean prior to enrolling in the course.

**Professional Workshops and Internships**

Professional workshops and internships are available with ZGC Film and Digital Equipment; Shadowstone Studios: Media, Film and Entertainment; Butter Tree Studios: Film and Sound Stages; New Jersey Theater Alliance (Actor Access); MediaMix Studios: Studio, Location, Postproduction, Rentals; Writers Guild of America, East; and New Jersey Film Commission, Steve Gorelick, David Schoner, Directors.

**Global Affairs (M.A.)**

New.

The M.A. in global affairs comprises 30 credits (10 courses) of graduate-level course work offered primarily to consular and diplomatic staff (as well as to their spouses and dependents) off campus. They are part-time students coming from around the globe, from Argentina to Zambia. They work full-time, typically taking six credits off-campus per quarter and completing the program in two to three years. Quarters begin in September, January and April. The program seeks to broaden and deepen students' understanding of the historical, economic, cultural, diplomatic and political trends that define current affairs and drive change, stability and instability around the globe.

In addition to full-time FDU faculty, key professors include former U.N. ambassadors and consuls general who hold small, in-person classes. Students also have the option of taking a number of online courses to accelerate the program, or to complete it if they are re-posted out of the area.

**Admission Requirements**

The credentials required for admission to the master's degree in global affairs as a matriculated student include the following:

1. A graduate application for admission and nonrefundable application fee.
2. A bachelor's degree (or corresponding post-secondary degree) from an accredited college or university with a minimum cumulative grade point ratio (CGPR) of 2.70. Applicants with a CGPR of less than 2.70 may be admitted as matriculated students on probation.
3. Official transcripts from all colleges and universities previously attended. Applicants who are unable to provide official documents at the time of enrollment may register as nonmatriculated students with a graduate faculty adviser.
4. Two letters of recommendation.
5. A cover letter briefly outlining career ambitions. (Spouses or dependents of a consular or diplomatic employee must indicate this in their cover letter.)

# Addendum

## Requirements for the Master of Arts Degree

1. Students must complete 30 credits (10 courses) of graduate-level course work in political science or in sister disciplines, as approved, in history, economics, business or public administration or administrative science.

2. Students are strongly encouraged to engage in a thesis and use up to six credits to complete it.

3. A cumulative grade point ratio of 3.00 on a 4.00 scale is required for graduation. Students who receive more than two grades of C or lower will be dismissed from the program.

## Course Offerings

*Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with appropriate department chair.*

### Global Affairs

*School of Public and Global Affairs*

**POLS6682**

**3 Credits**

#### **Diplomatic History of the U.S.**

The course will consider the various stages of U.S. diplomatic policies with an emphasis on the U.S. as a major world player.

**POLS6702**

**3 Credits**

#### **Thesis Seminar**

Collaborative preparation for a substantial thesis, including research questions, hypothesis-construction, proposal-writing and the literature review.

**POLS6711**

**3 Credits**

#### **Genocide**

The course will examine the roots, the methods and the impact of genocide on the global community, including case studies from Armenia to Darfur.

**POLS6714**

**3 Credits**

#### **U.S. and the Developing World**

Analysis of the relationship between the U.S. and selected developing regions of the world in a global, interdependent world.

**POLS6753**

**3 Credits**

#### **American Culture in Global Perspectives**

Examines political, economic and social themes and emphasizes dynamic encounters with ideas from other societies.

**POLS6801**

**3 Credits**

#### **Methods of Political Analysis**

A study of fundamental concepts and materials required for political analysis. Development of techniques for hypothesis formation; collection, evaluation and presentation of data.

**POLS6840**

**3 Credits**

#### **Thesis or Project**

**POLS6870**

**3 Credits**

#### **Ethics in Public Affairs**

This seminar explores the use (and abuse) of moral reasoning and cost-benefit analysis in politics through the critical examination of controversial political issues, such as abortion, affirmative action, health care, welfare reform, military intervention and the death penalty.

**POLS6871**

**3 Credits**

#### **Latin-American Relations**

This is a study of the modern relationship between the U.S. and specific Latin-American nations.

**POLS6873**

**3 Credits**

#### **Seminar on Globalization**

This seminar will examine globalization as an important characteristic of the new world order, which is represented by the expansion of market forces and the global transfer of sociocultural and political institutions.

**POLS6874**

**3 Credits**

#### **Trafficking in Humans**

Examines various issues related to human trafficking with emphasis on political concerns root causes in culture, custom and law.

**POLS6875**

**3 Credits**

#### **Seminar in International Trade**

Why nations and organizations trade, what they trade, how they trade and who gains or loses. The class also examines regulations and restrictions on international trade and their effects. Topics include commodities markets, foreign direct investment, international transactions under authoritarian regimes, the role of banks and brokers, international trade agreements, parallel markets and current trade policy disputes.

**POLS6876**

**3 Credits**

#### **Elements of Innovation**

A collaborative survey of ecosystems at the local, national and global level that support, or do not support, a start-up economy in develop-

ing countries as well as in post-industrial societies, to include capital formation and capital deployment, understanding market opportunities, the openness of markets, market barriers, conditions for new entries, enterprise buildouts and entrepreneurship and market, legal, societal and cultural barriers to innovation.

**POLS6900**

**3 Credits**

#### **Selected Studies in Political Science**

Study of selected special topics and problems in the area of political science.

**POLS7790**

**1–3 Credits**

#### **Selected Studies (Political Science)**

Study of selected special topics and problems in the area of political science.

**POLS7800**

**1–6 Credits**

#### **Master's Independent Study**

Independent study in political science at the master's level. Instructor's consent required.

**POLS7815**

**3 Credits**

#### **Nationalism and Its Discontents**

The political and social bases of nationalism, its relation to culture identity, ethnicity, language and ideological narrative manifesting movements for change. Selected contemporary and historical examples are examined, as well as their subcultural and subnational disidentifications

**POLS7820**

**3 Credits**

#### **Models of Political Systems**

Comparative analysis of modern democratic and totalitarian governments and institutions. With emphasis on the developing nations and their interpretations of these systems through a study of political culture, political parties and political crises.

**POLS7821**

**3 Credits**

#### **Modern Political Theory**

Traces the main developments in modern political thought from Hobbes to Mao. Emphasizes problems regarding liberty, political obligation, the common good, etc.

**POLS7822**

**3 Credits**

#### **The Character of Revolutionary Movements**

An examination of selected revolutionary movements with emphasis on cause, organization and outcome.



**POLS7825**

**3 Credits**

**Foreign Policy and Diplomacy**

Intensive analysis of the dynamics of world politics in the independent post-World War II era; the conceptions of world order among major actors, national and global interests, transnationalism, instrumentalities of foreign policy development and diplomatic processes.

**POLS7826**

**3 Credits**

**Politics of Public Policy**

Studies declared intentions and actions of elected officials in meeting human needs and resolving conflicts within society. Emphasizes agenda setting, policy-making models, policy formulation, implementation, evaluation and the role of ideology.

**POLS7830**

**3 Credits**

**International Organizations**

Typology of organizations: League of Nations to the United Nations, regional organizations, public and private international organizations and transnational organizations.

**POLS7831**

**3 Credits**

**International Law**

Origin of international law and its relationship to municipal law. Challenges and responses to current issues.

**POLS7832**

**3 Credits**

**International Problems and Conflict Resolution**

Causes and possible solutions to major international conflicts.

**POLS7833**

**3 Credits**

**Modern Warfare and Global Stability**

Impact of insurrection, nonconventional warfare and terrorism on the international community.

**POLS7834**

**3 Credits**

**Politics of the Global Economy**

A study of the relationship between political motivations and economic actions on the international economy. With emphasis on the interplay between the free market and planned economies.

**POLS7835**

**3 Credits**

**Geography and World Politics**

Examines the political ramifications of environmental decay, economic and environmental refugees and the utilization of finite resources.

**POLS7836**

**3 Credits**

**Crisis Leadership**

The principles of leadership during times of significant stress. Various models, strategies and tactics of leadership are studied using the examples of civilian and military leaders.

**POLS7837**

**3 Credits**

**The Modern Balkan States**

An intensive examination of the political, economic and cultural forces that shaped the modern Balkan states. The formation of national identities, intrastate institutions, modernization, stability and change and interstate relations in the region will be among the topics covered at the first level of analysis. A second level of analysis views the region within its European context and in a framework of world affairs from the 19th century to the present. Particular attention will be given to Greece and Turkey as the principal Balkan powers.

**POLS7851**

**3 Credits**

**Forces and Issues: Middle East**

Examines the trends and political forces at work in the region, past struggles, current issues and future aspirations.

**POLS7853**

**3 Credits**

**The New Europe**

The state system of Europe: integration and consolidation since World War II and global implications for East-West relations.

**POLS7854**

**3 Credits**

**Changing Eastern Europe**

Examines the dissolution of the Communist Bloc and the movement toward new ideologies. Emphasizes nationalism, ethnicity and economic organization.

**POLS7855**

**3 Credits**

**The Modern African State**

Examines development of selected African states in terms of history, ideology and institutions. Emphasizes the region south of the Sahara, including Nigeria, Zaire and the Union of South Africa.

**POLS7856**

**3 Credits**

**Cities in Crisis**

The course will examine problems faced by cities: crime, housing, education and finances. It will consider causes and solutions to these problems.

**POLS7863**

**3 Credits**

**Comparative Government: Middle East**

Examines diverse systems of government among selected Middle East states. Emphasizes historical development, current ideologies, institutions and practices.

**POLS7866**

**3 Credits**

**Africa in World Politics**

Examines the impact of African affairs on contemporary world issues. Emphasizes political alignments, economic integration and social diversity.

**POLS7867**

**3 Credits**

**Political and Economic Challenges for Africa**

Examines contemporary issues in Africa. Project trends in political development, human rights and environmental programs.

**POLS7868**

**3 Credits**

**Terrorism and Insurgency**

Examines the conditions that encourage intervention, clandestine political action, demonstration of force, unconventional warfare and terrorism and their impact on the global community.

**POLS7869**

**3 Credits**

**Economics of National Security**

An analysis of the economic drivers and costs of national security. Security issues include, among others, insurgency, terrorism and ethnic conflicts.

**POLS7870**

**3 Credits**

**International Implications of Middle East Problems**

Examines ways in which competing systems within the region affect international alliances and trade. Emphasizes role of Islamic fundamentalism, natural resources and political ideologies.

**POLS7871**

**3 Credits**

**The Modern Asian State**

Examines the development of selected Asian states with an emphasis on historical influences, ideologies, institutions and economic philosophies.

**POLS7872**

**3 Credits**

**China and Japan: Comparative Systems**

Examines the political, economic and social institutions of both nations. Emphasizes the competition for leadership in the region.



# Addendum

## POLS7875

3 Credits

### Political and Economic Challenges: Asia

Examines the impact of global events on Asian development. Emphasizes roles of the developing nations, the "Little Tigers," China and Japan in political and economic coordination.

## POLS7874

3 Credits

### Latin America: New Challenges

Political responses to the economic and social challenges of modernization. Focuses on democratization efforts and economic cooperation.

## POLS7875

3 Credits

### Canada, Mexico and U.S. Perspectives

Examines the growing interdependence of the North American nations. Emphasizes political, diplomatic and economic interaction and identifies future trends.

## POLS7902

3 Credits

### Rethinking Europe's Future

The twin burdens of "depth" and "breadth" have reappeared in the region's political imagination and debate in the form of two fundamental questions over Europe's future: What is Europe? What Europe for which Europeans?

# Pharmacy (Pharm.D.)

(Pages 183–203)

Updated.

## Requirements for the Pharm.D. Degree

### 1st Year

#### Foundations in Pharmacy Education

#### Fall 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
	Total..... 18

#### Spring 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

Credits

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
	Total..... 17
<b>Completed in June, July or August</b>	
PHRM6501	
Introductory Pharmacy Practice Experience (IPPE) I: Community.....	4

### 2nd Year

#### Expanding Horizons

#### Fall Semester

PHRM7105	
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology.....	4
PHRM7106	
Integrated Pharmacotherapy VI: Infectious Disease.....	4
PHRM7111	
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.....	2
PHRM7201	
Pharmaceutics III: Dosage Form and Drug Delivery Systems.....	2
PHRM7301	
Biostatistics.....	2
PHRM7401	
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.....	2
PHRM7700	
Beyond the Curriculum: Expanding Horizons (1).....	0
Elective.....	3
	Total..... 19

#### Spring Semester

PHRM7107	
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II.....	4
PHRM7108	
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.....	4



**Addendum**

	Credits		Credits		Credits
PHRM9309		PHRM9401		PHRM9505	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Oncology I.....	5	Drug Information I.....	5	Elective – Research I.....	5
PHRM9310		PHRM9402		PHRM9506	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Oncology II.....	5	Drug Information II.....	5	Elective – Research II.....	5
PHRM9311		PHRM9403		PHRM9507	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Critical Care I.....	5	Medication Safety I.....	5	Elective – Marketing I.....	5
PHRM9312		PHRM9404		PHRM9508	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Critical Care II.....	5	Medication Safety II.....	5	Elective – Marketing II.....	5
PHRM9313		PHRM9405		PHRM9509	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Cardiology I.....	5	Managed Care I.....	5	Elective – Patient Advocacy I.....	5
PHRM9314		PHRM9406		PHRM9510	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Cardiology II.....	5	Managed Care II.....	5	Elective – Patient Advocacy II.....	5
PHRM9315		PHRM9407		PHRM9511	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Advanced Pharmacy Practice	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Experience (APPE) VIII:	
Behavioral Health I.....	5	Specialty Pharmacy I.....	5	Elective – Health Care	
PHRM9316		PHRM9408		Organization Management I.....	5
Advanced Pharmacy Practice		Advanced Pharmacy Practice		PHRM9512	
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		Advanced Pharmacy Practice	
Behavioral Health II.....	5	Specialty Pharmacy II.....	5	Experience (APPE) VIII:	
PHRM9317		PHRM9409		Elective – Health Care	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Organization Management II.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		PHRM9513	
Transitions of Care I.....	5	Medical Device/Patient Safety I.....	5	Advanced Pharmacy Practice	
PHRM9318		PHRM9410		Experience (APPE) VIII:	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Elective – Informatics I.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VII: Elective –		PHRM9514	
Transitions of Care II.....	5	Medical Device/Patient Safety II.....	5	Advanced Pharmacy Practice	
PHRM9319		PHRM9501		Experience (APPE) VIII:	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Elective – Informatics II.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VIII:		PHRM9515	
Nutrition Support I.....	5	Elective – Public Health I.....	5	Advanced Pharmacy Practice	
PHRM9320		PHRM9502		Experience (APPE) VIII:	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Elective – Management I.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VIII:		PHRM9516	
Nutrition Support II.....	5	Elective – Public Health II.....	5	Advanced Pharmacy Practice	
PHRM9321		PHRM9503		Experience (APPE) VIII:	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Elective – Management II.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VIII:		PHRM9517	
Emergency Medicine I.....	5	Elective – Industry I.....	5	Advanced Pharmacy Practice	
PHRM9322		PHRM9504		Experience (APPE) VIII:	
Advanced Pharmacy Practice		Advanced Pharmacy Practice		Elective – Regulatory I.....	5
Experience (APPE) VI: Elective –		Experience (APPE) VIII:		PHRM9518	
Emergency Medicine II.....	5	Elective – Industry II.....	5	Advanced Pharmacy Practice	
				Experience (APPE) VIII:	
				Elective – Regulatory II.....	5
				Total.....	43

## Course Offerings

New and updated.

### PHRM6104

3 Credits

#### **Integrated Pharmacotherapy IV: Cardiology/Pulmonary I**

This is the fourth integrated pharmacotherapy module and the first of two courses focusing on the cardiovascular and pulmonary systems. This course begins with a description of the autonomic nervous system and its critical role in the functioning of major organ systems, and discusses major drugs affecting this system. This course further integrates basic principles of anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics and pharmacotherapy related to the presentation and management of some major cardiovascular and pulmonary diseases. Physiocochemical and biological principles of dosage forms and drug-delivery strategies used to treat these conditions are discussed, as are the materials and methods used to prepare and administer the appropriate treatment. Cases and examples are used to provide the students with the skills to solve problems related to cardiovascular diseases in an active learning environment. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics and PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care. Corequisite: PHRM6111 Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care.

### PHRM7107

4 Credits

#### **Integrated Pharmacotherapy VII: Cardiology/Pulmonary II**

This is the seventh pharmacotherapy module and the second of two courses focusing on the cardiovascular and pulmonary systems. It also covers selected diseases of the eye, ear, nose and throat. This course provides students with an integrated approach to understanding principles and solving problems of pulmonary disorders and diseases of the eye, ear, nose and throat. The anatomy, physiology, pathophysiology, medicinal chemistry, pharmacology, pharmacokinetics and pharmacotherapy related to the presentation and management of these disorders are covered. Physiocochemical and biological principles of dosage forms and drug-delivery strategies used to treat these conditions are discussed, as are materials and methods used to prepare and administer the appropriate treatment. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics and PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to

Pathophysiology, Genetics, Microbiology and Delivery of Care. Corequisite: PHRM7112 Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.

### PHRM8321

1 Credit

#### **Health Care Ethics and Team Decision Making**

This course will introduce the students to the ethical issues that pharmacists and other health care professionals have to consider when treating patients. Various topics related to clinical ethics, including informed consent, decisional capacity, do-not-resuscitate orders, surrogate decision making, confidentiality, the distinction between research and clinical care and end-of-life care will be introduced. Ethical decision-making will be practiced in an interactive environment through case studies with teams of students from various health professions.

### PHRM8804

3 Credits

#### **Applied Clinical Data Analytics**

This course teaches methodologies and technologies used heavily in the field of clinical analytics. Data-management principles, database foundations and aspects of the data pipeline are educated didactically before students begin to learn and utilize high-powered analytical tools such as Python, R and SQL. This course will heavily feature themes in health care as each of these tools and skills will be applied to real-world problems that data analytics is poised to help solve. Prerequisite: PHRM7801 Informatics and Information Systems.

### PHRM8808

3 Credits

#### **Principles of Informatics in Population Health**

Much of pharmacy and medicine is in the treatment of individual patients with specific medical needs and conditions. A major focus now and for the future is population health management in order to prevent our populations from becoming ill and needing acute treatment. Informatics and analytics are a necessary force multiplier for providers and pharmacists to enhance decision making and enable care for entire populations of people. Through this course, students will learn the management of populations as well as the information systems and techniques to do so safely and efficiently. This integrated course will have multiple instructors covering a wide range of population and public health content areas, which may include practicing physicians, nurses, pharmacists and care-management specialists.

### PHRM9323

5 Credits

#### **Advanced Pharmacy Practice Experience (APPE) VI: Elective – Geriatrics I**

The five-credit elective geriatric advanced phar-

macy practice experience will focus on the elderly population, defined as patients 65 years and older. By working with the multidisciplinary team, including nurses, case managers, prescribers and others, dedicated to this patient population, the student pharmacist will manage adult inpatients. Students will identify medication-related problems and formulate clinical solutions to provide optimal care for all patients who meet criteria (inpatients older than 65 years old). Students will contribute daily to effective patient-care delivery while developing respect for the elderly population. Students are expected to be at the site a minimum of eight hours a day, five days a week for five consecutive weeks. Students must adhere to the schedule established by the preceptor.

### PHRM9324

5 Credits

#### **Advanced Pharmacy Practice Experience (APPE) VI: Elective – Geriatrics II**

The five-credit elective geriatric advanced pharmacy practice experience will focus on the elderly population, defined as patients 65 years and older. By working with the multidisciplinary team, including nurses, case managers, prescribers and others, dedicated to this patient population, the student pharmacist will manage adult inpatients. Students will identify medication-related problems and formulate clinical solutions to provide optimal care for all patients who meet criteria (inpatients older than 65 years old). Students will contribute daily to effective patient-care delivery while developing respect for the elderly population. Students are expected to be at the site a minimum of eight hours a day, five days a week for five consecutive weeks. Students must adhere to the schedule established by the preceptor.

### PHRM9900

1 Credit

#### **Pharmacy Capstone I**

This is the first course of the two-course series. The course will focus on reviewing and integrating all knowledge and skills acquired through the didactic and experiential curriculum in preparation for licensure. Basic and clinical sciences and pharmaceutical calculations will be emphasized. Capstone assessments will be administered.

### PHRM9901

2 Credits

#### **Pharmacy Capstone II**

This is the second course of a two-course series. The course will focus on reviewing and integrating all knowledge and skills acquired through the didactic and experiential curriculum in preparation for licensure. Pharmacy law, basic and clinical sciences and pharmaceutical calculations will be emphasized. Capstone assessments will be administered.



# Addendum

## Political Science (M.A.)

New.

Fairleigh Dickinson University's School of Criminal Justice, Political Science and International Studies offers students the benefit of earning a Master of Arts degree in political science. This program provides an integration of disciplines and areas of interest in political science and international affairs. The Master of Arts in political science aims to give students a well-rounded education and understanding of the dynamic changes currently taking place in the international community. The degree requires the successful completion of 33 credits. Twelve credits comprise the required courses that every student must take. The remaining 21 credits are electives depending on the student's area of interest and concentration.

The M.A. in political science offers three areas of concentration — **international relations and the United Nations, international justice studies and American government and politics.** Grounded in the theoretical and applied knowledge of the discipline of political science, the program's flexibility permits students to choose related and approved courses from the disciplines of criminal justice and history, as well as approved cross-listed courses in a variety of other disciplines.

**International relations and the United Nations and international justice studies** are multidisciplinary concentrations which invite students to further explore the meaning of global citizenship, the practice of diplomacy, relations among states, the functions of international systems and the processes of globalization, taking advantage of FDU's unique "Special Consultative Status" as a nongovernmental organization with the U.N. Economic and Social Council (ECOSOC), its membership in the U.N. Academic Impact, its accreditation by the U.N. Department of Public Affairs and its relations with numerous diplomatic missions.

### For Information

For information about the M.A. in political science program, contact Dr. Samuel Raphalides, director, School of Criminal Justice, Political Science and International Studies, at sjraph@fdu.edu or (201) 692-2413.

### Requirements for the Master of Arts Degree

The Master of Arts in political science requires satisfactory completion of 33 credits. This consists of 12 credits in required courses and 21 credits in pre-approved graduate electives.

The following four courses (12 credits) represent the core curriculum for the master's in political science and are required of all students in this program.

### Required Courses

	Credits
CRIM6025	
Research Methods in Criminal Justice and Criminology (Social Sciences).....	3
POLS6800	
Master's Research or Comprehensive Examination.....	1-6
POLS7820	
Models of Political Systems.....	3
POLS7826	
Politics of Public Policy.....	3

### Elective Courses

Students can choose from any of the following courses in fulfilling their remaining 21 credits. All elective-course selections must be made in consultation with an academic adviser. Courses are interdisciplinary, consisting of the political science, history and criminal justice fields respectively. Elective courses are also flexible to the students' particular interest(s) in international relations and the U.N., international justice studies and American government and politics.

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

	Credits
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
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

	Credits
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

## **Public Administration (M.P.A.)**

*(Pages 224–230)*

Updated.

### **Specializations**

The Public Administration Institute offers various master's specializations: global affairs, global transportation management, health care management, public management and public policy.

#### ***Global Affairs***

This specialization concentrates on the administrative structure and issues in the areas of international and diplomatic relations and activities. Courses stress communication, leadership and administrative interaction in the international arena, as well as cultural perspectives. Courses include PADM7780 Diplomatic Communication for Administrators and PADM7796 International Dimensions of Public Administration.

#### ***Global Transportation Management***

This specialization concentrates on the background, administrative structure and issues, environmental components and operational aspects in the context of international transportation and commerce. Courses include PADM7749 Development of Global Transportation System and PADM7753 Issues of Security and Transportation Systems.

#### ***Health Care Management***

The specialization in health services administration consists of a series of courses that are designed, in combination with the M.P.A. core curriculum, to meet the accreditation standards of the Association of University Programs in Health Administration. Students in the health care management concentration take course work such as PADM7731 Introduction to Health Systems and Policy, PADM7732 Health Finance and Control Systems, PADM7734 Managing the Continuum of Care and PADM7791 Global Health Issues.

### ***Public Management***

Students choosing this specialization take 15 credits of course work selected from among a series of specially designated elective courses such as PADM7713 Organizational Performance Assessment, PADM7714 Law and Administration, PADM7715 Employee Relations and PADM7716 Delivery of Public Services.

### ***Public Policy***

Leaders are called on to analyze, evaluate and devise policy for others to implement. This specialization cuts across a variety of subject matter to assess problems and devise solutions.

New.

### ***Dual Degree Option: M.P.A. and Pharm.D.***

Students enrolled in the University's Doctor of Pharmacy program can enhance their career trajectory by mastering non-profit and public sector administration. Pharm.D. students can complete the M.P.A. with a specialization in health care management and graduate on time with both degrees.



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