## Graduate Programs

### DOCTORAL PROGRAMS

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### MASTER’S PROGRAMS

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

- General Management
- M.B.A. for Executives
  - Saturday M.B.A. (blended online/in-class format)
- Management
- International Business
- Finance
- Business Administration
- Bilingual/Bicultural Education Specialist
- Dual Literacy/Reading and Multisensory Reading Specialist
- English as a Second Language Specialist Certification
- Instructional Technology Specialist
- Literacy/Reading Specialist
- Professional Studies Concentration
- Teacher of Students with Disabilities Certification
- Educational Leadership/Post-Master’s Principal Certification/Supervisor Certification**
- Learning Disabilities/Certification as Teacher of Students with Disabilities (K–12) or Learning Disabilities Teacher Consultant**

#### Master of Arts (M.A.)

- Clinical Mental Health Counseling/LPC and SAC options
- Communication
- Creative Writing and Literature for Educators
- Criminal Justice
- Education for Certified Teachers**
  - Bilingual/Bicultural Education Specialist
  - Dual Literacy/Reading and Multisensory Reading Specialist
  - English as a Second Language Specialist Certification
  - Instructional Technology Specialist
  - Literacy/Reading Specialist
  - Professional Studies Concentration
  - Teacher of Students with Disabilities Certification
- Educational Leadership/Post-Master’s Principal Certification/Supervisor Certification**
- Learning Disabilities/Certification as Teacher of Students with Disabilities (K–12) or Learning Disabilities Teacher Consultant**

#### Master of Business Administration (M.B.A.)

- Accounting
- Business Administration
- Finance
- International Business
- Management
- Marketing
- Pharmaceutical Management Studies
- Saturday M.B.A. (blended online/in-class format)

#### M.B.A. for Executives

- General Management
- Health Sector Management Specialization

#### Master of Fine Arts (M.F.A.)

- Creative Writing/Concentrations in Creative Nonfiction, Fiction, Literary Translation, Poetry, Writing for Young Adults and Children’s Literature

### MASTER’S PROGRAMS

#### Master of Health Science (M.H.S.)

Tracks in Clinical Research Administration, Gateway to Professional Studies, Health Informatics, Regulatory Science

#### Master of Public Administration (M.P.A.)

- Specializations in Bilingual Administration, Global Transportation Management, Health Services Administration, International Relations and Diplomacy, Nursing Management, Public Management, Sustainability

#### Master of Sports Administration (M.S.A.)

- Specializations in Coaching Theory and Strategies, Sports Administration

#### Master of Science (M.S.)

- Accounting
- Biology
  - Business
  - Chemistry/Pharmaceutical Sciences
  - Education
  - Psychology/Counseling
- Chemistry/Concentrations in Informatics (METR only), Pharmaceutical Chemistry
- Computer Engineering
- Computer Science
- Cosmetic Science
- Cybersecurity and Information Assurance
- Digital Marketing (Online Only)
- Electronic Commerce
- Hospitality Management Studies
- Management Information Systems
- Medical Technology
- Service Innovation and Leadership
- Supply Chain Management
- Taxation

#### Master of Science in Electrical Engineering (M.S.E.E.)

Concentrations in Digital Signal Processing and Communications, Computers, Devices and Systems

#### Master of Science in Nursing (M.S.N.)

- Adult-Gerontology Nurse Practitioner (with specializations in Administration, Education and Forensics), Family Nurse Practitioner, Family Psychiatric/Mental Health Nurse Practitioner, Nursing Administration, Nursing Education, Nursing Information Systems

### FLOR = Florham Campus, Madison, NJ

### METR = Metropolitan Campus, Teaneck, NJ

### O-C = Off Campus

**Fees are subject to change.**

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*Applicants to the D.N.P. and all M.S.N. programs must complete the NCLEX examination and must currently hold a U.S. nursing license. All M.S.N. programs are offered on a part-time basis with the exception of the Adult Nurse Practitioner Program in Education and Family Nurse Practitioner Program, which have fall semester start dates only. F-1 and J-1 students may only apply for the Adult Gerontology Nurse Practitioner in Education or Family Nurse Practitioner programs.

**Admission to this program is not usually granted to international students due to New Jersey certification policies.

* Individuals already holding an M.B.A. degree from an accredited college or university may pursue a post-M.B.A. graduate certificate in these and other select areas. Certificate programs are not available to F-1 and J-1 visa students.

* This Executive-level program, tailored to specific groups of experienced professionals, is offered on Saturdays at Hamilton Park Hotel and Conference Center in Florham Park, NJ, located adjacent to the Florham Campus.

* Applicant must be registered as Medical Technologist by the American Society of Clinical Pathologists (ASCP).

* The Postbaccalaureate Respecialization Program in Psychology, the M.A. in Student Services Administration and M.S. in Service Innovation and Leadership are offered part-time only. The M.S. in Business (with a concentration in Business), M.S. in Computer Science, Master of Administrative Science (M.A.S.), Master of Public Administration (M.P.A.), M.S. in Homeland Security and M.S. in Hospitality Management programs are offered full-time at the Metropolitan Campus and part-time at the Florham Campus.
Locations
Florham Campus (Madison, NJ)
Metropolitan Campus (Teaneck, NJ)
Vancouver Campus (British Columbia, Canada)
Wroxton College (Wroxton, England)

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

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

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

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

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

Interested in applying?
Domestic Students
Apply online at fdu.edu/apply or request a paper application from:

Office of Graduate Admissions
Fairleigh Dickinson University
1000 River Road • T-KB1-01
Teaneck, NJ 07666-1914
Email: grad@fdu.edu

International Students
Apply online at fdu.edu/apply or request a paper application from:

Office of International Admissions
Fairleigh Dickinson University
1000 River Road • T-KB1-01
Teaneck, NJ 07666-1914 USA
Telephone: 1-201-692-2205
Facsimile: 201-692-2560
Email: global@fdu.edu
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</tr>
<tr>
<td>Last Day of Classes, Spring Semester (Sat.)</td>
<td>May 28</td>
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<tr>
<td>Final Examinations (Mon.–Sat.)</td>
<td>May 31</td>
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<tr>
<td>Grades due no later than 5 p.m. on the third day after exam is administered. Semester Ends, 11 p.m. (Sat.)</td>
<td>July 4</td>
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<tr>
<td>Summer Session II 2019</td>
<td>July 5</td>
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<tr>
<td>Classes Begin, 8 a.m. (Mon.)</td>
<td>July 6</td>
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<tr>
<td>Independence Day Holiday (Wed.)</td>
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<tr>
<td>Independence Day Holiday Makeup Day (Fri.)</td>
<td>August 11</td>
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<tr>
<td>Classes End, 11 p.m. (Sat.)</td>
<td>September 3</td>
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<tr>
<td>Labor Day Holiday Makeup Day (Fri.)</td>
<td>September 10</td>
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<tr>
<td>Final Drop/Add Changes (Mon.)</td>
<td>September 13–19</td>
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<tr>
<td>Fall Session 2019</td>
<td>September 20</td>
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<tr>
<td>Classes Begin, 8 a.m. (Mon.)</td>
<td>November 2</td>
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<td>Labor Day Holiday (Mon.)</td>
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<td>Midterm Progress Reporting Opens (Mon.)</td>
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<td>Fall Recess (Mon.–Tue.)</td>
<td>November 29</td>
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<tr>
<td>Midterm Progress Reporting Closes (Tue.)</td>
<td>December 10</td>
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<tr>
<td>Last Day for Student Withdrawal from Classes (Fri.)</td>
<td>December 13</td>
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<tr>
<td>Priority Registration for Spring Semester 2019</td>
<td>December 20</td>
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<tr>
<td>Thanksgiving Recess Begins</td>
<td>December 26</td>
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<tr>
<td>Grades due no later than 5 p.m. on the third day after exam is administered. Semester Ends, 11 p.m. (Wed.)</td>
<td>December 31</td>
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<tr>
<td>Summer Session III 2019</td>
<td>January 7–25</td>
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<tr>
<td>Classes Begin, 8 a.m. (Mon.)</td>
<td>January 21</td>
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<tr>
<td>Martin Luther King Jr. Day Holiday (Mon.)</td>
<td>January 25</td>
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<tr>
<td>Martin Luther King Jr. Day Holiday Makeup Day (Fri.)</td>
<td>May 5</td>
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<tr>
<td>Final Examinations</td>
<td>May 7–12</td>
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<tr>
<td>Grades due no later than 5 p.m. on the third day after exam is administered. Semester Ends, 11 p.m. (Sat.)</td>
<td>May 12</td>
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<tr>
<td>University Commencement (Tue.)</td>
<td>May 15</td>
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**Fall Semester 2017**
- August 14–25
- August 28
- September 4
- September 11
- October 2
- October 16–17
- October 24
- November 3
- November 6–21
- November 21
- November 27
- December 11
- December 12–13
- December 14–20
- December 20

**Spring Session 2019**
- January 2–25
- January 28
- February 11
- March 4
- March 15
- March 25
- March 30
- May 11
- May 18
- May 21

**Summer Sessions 2019**
- May 27
- May 28
- May 31
- July 4
- July 5
- July 6
- June 17
- July 4
- July 5
- July 27
- July 8
- August 17

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

*Weekend, off-campus and some Anthony J. Petrocelli College of Continuing Studies courses and certain special programs may follow a different schedule.*
Online classes and classes that do not meet on the Metropolitan Campus or Florham Campus may not follow the holiday and academic break periods shown below. The instructor will clarify the class meeting schedule for each course, consistent with the FDU Credit Hour Definition.

### Fall 2017
- **Registration/Academic Counseling and Advising Classes Begin**, 8 a.m. (Sun.) September 18–22
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** October 4
- **Fall Recess** October 5–11 (Mon.–Tue.)
- **Midterm Progress Reporting Opens (Mon.)**
- **Priority Registration for Spring Semester 2018**
- **Midterm Progress Reporting Closes (Fri.)**
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Thanksgiving Recess Begins, 11 p.m. (Tue.)** November 21
- **Classes Resume, 8 a.m. (Mon.)** November 27
- **Last Day of Classes, Fall Semester Ends**, 11 p.m. (Sat.) December 16
- **Final examinations for all face-to-face classes are held during the last class meeting. Grades for face-to-face classes are due no later than 5 p.m. on the third day after exam is administered. Grades for online classes are due no later than third day after semester ends.**

### Spring 2018
- **Registration/Academic Counseling and Advising Classes Begin**, 8 a.m. (Sun.) January 2–5
- **Martin Luther King Jr. Day Holiday (Mon.)** January 15
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** January 17
- **Martin Luther King Jr. Day Holiday Makeup Day** (Fri.)
- **Midterm Progress Reporting Opens (Mon.)** February 12
- **Midterm Progress Reporting Closes (Fri.)** March 2
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Spring Recess** March 9–12
- **Online Registration for Summer 2018 Sessions Opens (Thu.)** March 15
- **Classes Resume, 8 a.m. (Mon.)** March 19
- **Last Day of Classes, Spring Semester Ends**, 11 p.m. (Sat.) March 31
- **Final examinations for all face-to-face classes are held during the last class meeting. Grades for face-to-face classes are due no later than 5 p.m. on the third day after exam is administered. Grades for online classes are due no later than third day after semester ends.**

### Summer I 2018
- **Registration/Academic Counseling and Advising Classes Begin, 8 a.m. (Sun.)** April 2–6
- **Priority Registration for Fall Semester 2018**
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** April 18
- **University Commencement Holiday (Mon.)** May 15
- **Memorial Day Holiday (Mon.)** May 28
- **Memorial Day Holiday Makeup Day (Fri.)** June 1
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Last Day of Classes, Summer I Semester Ends**, 11 p.m. (Sat.) June 30
- **Summ er I 2018 — —**
- **Registration/Academic Counseling and Advising Classes Begin, 8 a.m. (Sun.)** July 3–7
- **Independence Day Holiday (Wed.)** July 4
- **Classes Begin, 8 a.m. (Sun.)** July 8
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** July 18
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Labor Day Holiday (Mon.)**
- **Last Day of Classes, Summer II Semester Ends**, 11 p.m. (Sat.) September 3
- **Fall 2018 — —**
- **Registration/Academic Counseling and Advising Classes Begin, 8 a.m. (Sun.)** September 17–21
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** October 3
- **Fall Recess** October 15–16
- **Midterm Progress Reporting Opens (Mon.)**
- **Midterm Progress Reporting Closes (Fri.)**
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Online Registration for Summer 2019 Sessions Opens (Fri.)**
- **Memorial Day Holiday (Mon.)** May 27
- **Memorial Day Holiday Makeup Day (Fri.)**
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Midterm Progress Reporting Closes (Fri.)**
- **Last Day of Classes, Summer II Semester Ends**, 11 p.m. (Sat.)
- **Summ er II 2019 — —**
- **Registration/Academic Counseling and Advising Classes Begin, 8 a.m. (Sun.)** April 8
- **Priority Registration for Fall Semester 2019**
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** April 24
- **University Commencement (Tue.)** May 21
- **Labor Day Holiday (Mon.)**
- **Last Day of Classes, Summer I Semester Ends**, 11 p.m. (Sat.) July 24
- **Summ er I 2019 — —**
- **Registration/Academic Counseling and Advising Classes Begin, 8 a.m. (Sun.)** April 8
- **Priority Registration for Fall Semester 2019**
- **Last Day for New Registrations and Final Drop/Add Changes (Wed.)** July 24
- **Labor Day Holiday (Mon.)**
- **Last Day of Classes, Summer II Semester Ends**, 11 p.m. (Sat.)
- **Summ er II 2019 — —**

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### Notes
- 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.
The University

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

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

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

FDU Cares

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

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

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

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

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

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

Founded as a small junior college in 1942, the University now maintains two major campuses in northern New Jersey — the Metropolitan Campus in Teaneck, and the Florham Campus in Madison, a campus in England and a campus in Canada.

The Metropolitan Campus offers a wide range of programs and degrees from the associate to the Ph.D. Its University College: Arts • Sciences • Professional Studies includes the depth and breadth of the liberal arts faculty, the focus and strength of the engineering programs, the variety and importance of the health professions, the quality of the clinical psychology doctoral program and the presence of the largest number of professional accredited programs on any FDU campus. The campus serves as the home of the ELS Language Center. The Campus is home to 18 Division I sports.

On the grounds of the former estate of Florence Vanderbilt and Hamilton Twombly, the Florham Campus is a selective, primarily residential campus with a strong honors program, offering a broad variety of strong undergraduate and graduate programs in business, the arts, the physical sciences and social and behavioral sciences. Florham is home to FDU’s School of Pharmacy and Health Sciences, the Daniel and Martina Lewis Center for Healthcare Innovation and Technology, the Rothman Institute for Innovation and Entrepreneurship, the internationally distributed The Literary Review and the oft-cited survey research group, PublicMind®. The campus is also host to 19 Division III sports teams, from baseball to tennis.

Recognizing that the student profile on most U.S. campuses is changing dramatically, the University’s Anthony J. Petrocelli College of Continuing Studies provides an enhanced focus on the adult learner, addresses the special educational needs of nontraditional students and continues to position FDU as a leader in providing learning opportunities with a strong academic foundation for students of all ages.

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business. The College offers undergraduate and graduate programs in business administration at the Florham Campus, Metropolitan Campus and Vancouver Campus.

Brief History
1942 — A two-year college is founded in Rutherford by Dr. Peter Sammartino and his wife, Sylvia (Sally). One hundred and fifty-three students are enrolled.
1945 — In response to the need for higher education in northern New Jersey, Fairleigh Dickinson College expands its programs into a four-year curriculum.
1948 — First accreditation is achieved from the regional accrediting agency, the Middle States Association of Colleges and Schools.
1954 — The first graduate-level program is offered — a master’s degree in business administration — still one of the University’s most popular programs.
1954 — A second campus is acquired: formerly Bergen Junior College, in Teaneck, New Jersey.
1956 — By action of the New Jersey State Board of Education, Fairleigh Dickinson College becomes Fairleigh Dickinson University.
1956 — The College of Dental Medicine admits its first students.
1957 — The Literary Review is founded as an international journal of contemporary writing.
1958 — A third campus is created in Madison, New Jersey, on the former estate of Florence Vanderbilt Twombly.
1964 — Edward Williams College, a two-year college offering associate’s degrees, with highly personalized instruction and guidance, begins classes on the Hackensack side of the Teaneck Campus.
1965 — The University opens its first overseas campus, Wroxton College in England.
1967 — The founding president, Dr. Peter Sammartino, retires after 24 years of service and is appointed chancellor and president emeritus. Dr. J. Osborn Fuller is appointed president.
1967 — The FDU Press is established and will print more than 1,500 scholarly books.

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

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

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

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

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

1983 — Walter T. Savage is appointed acting president.

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

1987 — The Rothman Center, the University’s major, state-of-the-art athletic and recreation facility on the Hackensack side of the Teaneck Campus, officially opens.

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

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

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

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

1994 — Dickinson Hall reopens at Teaneck.

1995 — The Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center opens at Madison.

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

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

2000 — The University modifies its mission, placing a greater emphasis on “the preparation of world citizens through global education.”

2001 — The University’s survey research group, PublicMind™, makes the first of hundreds of press releases based on measurements of public opinion.

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

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

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

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

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

2007 — The University opens an overseas campus, Vancouver Campus, in British Columbia, Canada.

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

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

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

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

2013 — Sheldon Drucker is appointed president of the University.

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

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

2016 — University Provost and Senior Vice President for Academic Affairs Christopher A. Capuano becomes the University’s eighth president on July 1, 2016.

2017 — Fairleigh Dickinson University celebrates its 75th Anniversary.

Impact

Fairleigh Dickinson University has had a widespread impact upon northern New Jersey. Approximately 70 percent of its more than 100,000 alumni have remained in New Jersey, and many work in the area’s industries. Companies such as Alcatel-Lucent; AT&T Corp.; BD; Bestfoods; Honeywell Inc.; International Business Machines Corporation; Johnson & Johnson; Merck & Co., Inc.; Novartis Pharmaceuticals Corp.; Prudential Insurance Company of America; Telcordia Technologies, Inc.; and Wyeth employ large numbers of FDU alumni.

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

Campuses
Fairleigh Dickinson has two campus locations in northern New Jersey and overseas campuses in England and Canada. Maps of the two U.S.-based campuses are included at the back of this Graduate Studies Bulletin.

Florham Campus
Madison, New Jersey

Location
The Florham Campus is located at the outskirts of Morristown on Route 124, near the intersection of Interstate 287, about 35 miles west of New York City. The campus is flanked by Drew University and the College of Saint Elizabeth, and its neighbors include the headquarters of several Fortune-500 companies. It is convenient to the Convent Station and Madison, NJ Transit railroad stations, the bus line and Morristown airport. It is approximately a 40-minute drive from Newark Liberty International Airport.

Description
This campus, situated on a beautifully landscaped park of 178 acres, became known as “Florham” when it was created as an estate for Florence Vanderbilt Twombly and her husband, Hamilton, by Frederick Law Olmsted (who also designed the grounds of New York City’s fabled Central Park) in 1897.

The Florham Campus serves a large residential undergraduate population, attracting students from across the country and abroad. During evenings and weekends, however, graduate and adult students are drawn to the campus’s convenient and flexible degree programs. Studies are offered through the Maxwell Becton College of Arts and Sciences, the Silberman College of Business, the Anthony J. Petrocelli College of Continuing Studies and University College: Arts • Sciences • Professional Studies. In addition to campus-based studies, the Silberman College hosts its executive M.B.A. and leadership development programs at the Wyndham Hamilton Park Hotel and Conference Center, which is located adjacent to the campus’s grounds. In addition, FDU’s School of Pharmacy and Health Sciences is located just down the road in a state-of-the-art facility one mile from campus.

Some of the campus’s Georgian-style buildings are more than a century old, and have been adapted to meet the educational mission of the University. The 100-room Hennessy Hall (Mansion) features classrooms, offices, conference-style meeting rooms and a large ballroom (Lenfell Hall). The estate’s former Orangery is part of the John and Joan Monninger Center for Learning and Research (library).

The campus includes both older and recent constructions featuring Georgian architecture, such as the Science Building, the Roberta Chiaiellello Ferguson and Thomas G. Ferguson Recreation Center (with an indoor swimming pool, gymnasium, fully equipped physical fitness center and racquetball courts) and the Martin F. Stadler, Patrick J. Zemmer, Hoffmann-La Roche Inc. Academic Building that houses 20 classrooms, student lounges and a dining facility for commuter and part-time students as well as the traditional undergraduate population.

Other major campus facilities include a science complex, a theater, a center for entrepreneurship and innovation, residence hall complexes and a refurbished Student Center.

Metropolitan Campus
Teaneck, New Jersey

Location
The Metropolitan Campus is located in the heart of the dynamic New York/New Jersey corridor, just minutes from Manhattan. The campus is directly accessible from Route 4, six miles from the George Washington Bridge, and stretches along the east and west banks of the Hackensack River. It features ample parking for commuters, as well as public transit stops right on campus. It is within a half-hour drive of Newark Liberty International Airport.

Description
The Metropolitan Campus features a university atmosphere with an international perspective. Its location as a bedroom community of New York City helps it to attract nearly equal numbers of undergraduate, adult learners and full- and part-time graduate students from throughout the country and the world. Minority and international students comprise nearly a third of the campus population, providing a decidedly cosmopolitan perspective to the campus. The campus offers ready access to the amenities and resources of a major city-center, and the security and collegiality of a mid-sized college campus.

Studies are offered through the Silberman College of Business, University College: Arts • Sciences • Professional Studies and the Anthony J. Petrocelli College of Continuing Studies.

Carving the 88-acre campus into two distinctive areas is the Hackensack River. The Metropolitan Campus is comprised of 55 buildings spanning the communities of Teaneck and Hackensack, New Jersey. The campus architecture is primarily contemporary, although some of the campus’s quaint older buildings housing departments and specialty areas reflect the area’s Dutch Colonial heritage.

Robison Hall, the Frank Giovatto Library, Alumni Hall and the Muscarelle Center for Building Construction Studies are set along the river’s east edge, while Dickinson Hall and the George and Phyllis Rothman Center (a 5,000-seat athletic and recreation facility) are located along the river’s west side. Other major facilities include a renovated Fitness Center (with a student lounge), the Student Union Building, University Hall and several residential complexes. Limited graduate housing is available in the campus’s newest residence hall, Northpointe (2003). Both Teaneck and Hackensack feature easy access to restaurants and shops, and plentiful on-campus parking is available.

Wroxton College
Wroxton Near Banbury, Oxfordshire, England

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

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

Originally constructed as an Augustinian priory in 1215, Wroxton Abbey has accommodated several British monarchs and statespeople such as Theodore Roosevelt. It now houses the College’s classrooms and seminar rooms, the library, fully modernized student-lodging facilities and computer laboratories.
Wroxton College is a unique experience both culturally and academically for students seeking to extend their horizons. Students have come to Wroxton from more than 250 American colleges and universities to participate in an academic program offered by a resident British faculty and visiting British scholars.

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

Admissions inquiries should be addressed to the Wroxton College/Study-abroad Office, 285 Madison Avenue, Madison, New Jersey 07940, (973) 443-8086 or 1 (800) 538-8803.

Vancouver Campus

Vancouver, British Columbia, Canada

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

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

Vancouver Campus serves primarily international students from around the world. Three undergraduate degree programs are currently available on campus: the B.S. in business administration with a concentration in international business and optional minors in entrepreneurship, finance, marketing or information technology; the B.S. in information technology with a minor in business administration and optional concentrations in network and systems administration and web-development technology; and the B.A. in individualized studies with specializations in applied technology and business, applied technology and communications, business and communications, disaster and emergency management, health and human services, global security studies, hospitality and tourism management, international relations, leadership administration, security and terrorism studies and sports administration studies. All programs use the same curricula offered for these degrees at FDU’s New Jersey campuses, and all offer U.S. degrees approved by the State of New Jersey’s Commission on Higher Education. Classes follow a trimester calendar that enables students to complete their degrees in less than three years by attending classes year-round.

The first graduate degree program for Vancouver Campus, the Master of Administrative Science (M.A.S.), was approved on April 27, 2011, and classes began in the summer of 2011. Specializations offered within the M.A.S. program include: computer security and forensic administration, emergency management administration, global health and human services administration, global leadership and administration, global technology administration and human resources administration.

The second graduate degree program for the Vancouver Campus, the Master of Science in hospitality management studies, was approved in December 2014, and classes began in the summer of 2015.

In addition to its degree programs, Vancouver Campus’s pre-University program is available to students who need additional support in developing their English language skills before starting their degree studies.

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

Admissions inquiries should be directed to the Office of Admissions, Vancouver Campus, at (604) 682-8112 or 1-877-338-8002 (in North America) or by email at vancouver-admissions@fdu.edu.

Accreditation

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

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

*3624 Market Street, Philadelphia, Pa. 19104-2680
**ABET, http://www.abet.org
(ETAC/ABET); hotel and restaurant management — Accreditation Commission for Programs in Hospitality Administration (ACPHA) (this accreditation applies only to the Bachelor of Science program); mechanical engineering technology — Engineering Technology Accreditation Commission of ABET* (ETAC/ABET); pharmacy — Accreditation Council for Pharmacy Education**; physical therapist assistant — Committee on Accreditation in Physical Therapy Education; radiography — Joint Review Committee on Education in Radiologic Technology; nursing — New Jersey State Board of Nursing and the Commission on Collegiate Nursing Education (CCNE); school psychology — National Association of School Psychologists (NASP); Silberman College of Business — AACSB International – The Association to Advance Collegiate Schools of Business; inclusion on approved lists of the American Medical Association and the American Dental Association (Medicine, Dentistry) by virtue of the accreditation by the Middle States Commission on Higher Education.

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

*ABET, http://www.abet.org
**Accreditation Council for Pharmacy Education, 135 South LaSalle Street, Suite 4100, Chicago, IL 60603; phone: (312) 664-8575; fax (312) 664-4652; website: www.acpe-accredit.org
The Colleges

Fairleigh Dickinson University is comprised of four colleges: Maxwell Becton College of Arts and Sciences, Silberman College of Business, the Anthony J. Petrocelli College of Continuing Studies and University College: Arts • Sciences • Professional Studies.

More than 50 graduate degree programs are offered by the colleges. The colleges’ degree programs and their faculty and staff are listed on this and the following pages. The admissions and academic requirements and detailed descriptions of each program are listed in alphabetical order within the Program section of this Graduate Studies Bulletin pages 38–243.

Maxwell Becton College of Arts and Sciences

Florham Campus, Madison, New Jersey

Geoffrey S. Weinman, Dean

The Maxwell Becton College of Arts and Sciences deepens students’ understanding of their chosen fields, while teaching them to communicate and reason clearly and effectively. The College is committed to helping students advance their careers or continue studies for higher degrees.

Programs

• Biology (M.S.)
• Chemistry (M.S.)
• Clinical Mental Health Counseling (M.A.)
• Communication (M.A.)
• Creative Writing (M.F.A.)
• Creative Writing and Literature for Educators (M.A.)
• Education for Certified Teachers (M.A.)*
• Educational Leadership (M.A.)**
• Health Science (M.H.S.)
• Pharmacy (Pharm.D.)
• Psychology
  • Industrial/Organizational Psychology (M.A.)
• Teaching (M.A.T.)***

Graduate courses in mathematics are available to students in the M.A.T. program and to qualified undergraduates with the permission of the department.

Facility & Staff

Administration

G.S. Weinman, Dean
J. Lehr, Associate Dean
E. Feeley, Associate Dean of Student Services

Department of Biological and Allied Health Sciences


Department of Chemistry and Pharmaceutical Science

A. Tesija, Chair; G. Anderle, M. Avaltroni, S. Bashkova, M. Elshaer, J. Ma, E. Salaski

Department of Communication Studies

G. Radford, Chair; C. Caldiero, K. Unnmore, C. Foster, K. Haspel, S. Latson, J. Lehr

Department of Literature, Language, Writing and Philosophy


Department of Mathematics, Computer Science and Physics


Department of Psychology and Counseling

A. Tasso, Chair; D. Brown, D. Calcagnetti, R. Griffio, K. Shirley, V. Viglione, D. Wentworth

School of Pharmacy and Health Sciences


*While the Master of Arts in education for certified teachers (see pages 115–120) is awarded through FDU’s University College: Arts • Sciences • Professional Studies on the Metropolitan Campus, Teaneck, New Jersey, nearly all courses required in fulfillment of the degree are offered at the Florham Campus, Madison, New Jersey.
**Master of Arts in educational leadership (see pages 121–122).
***Master of Arts in teaching (see pages 126–129).
The Colleges

Silberman College of Business
Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada
Andrew J. Rosman, Dean

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business. AACSB is the premier business school accrediting body.

Silberman College is a tricampus college of the University, offering graduate programs at the Florham Campus, Madison, New Jersey, and on the Metropolitan Campus, Teaneck, New Jersey. Its major goal at the graduate level is to develop the analytical ability and perspective of the graduate student in order to contribute to success as a responsible executive.

The College, a community of committed educators, administrators, and staff, has as its mission to instill in its students a superior level of business-management competence by offering distinctive programs that blend academic excellence and practical business knowledge with a global multicultural orientation.

The College aims to achieve recognition as a leading provider of high-quality, innovative education in business administration and as a leader in the enhancement of the practice of business management through the applied research and professional activities of the faculty.

The College achieves its mission through:
• Curricula that are directed to the educational growth of students and are responsive to the needs of the business community,
• Teaching excellence in all programs,
• Research capabilities that advance the practice of business management and
• Close ties with the business community served by the College.

The College includes several institutes to support graduate business education. The Rothman Institute of Innovation and Entrepreneurship provides students with cross-disciplinary opportunities to explore the meaning and process of capitalism and free enterprise in the nation’s economy.

Major Programs of Study

• Master of Business Administration (M.B.A.) Specializations
  Accounting
  Business Administration
  Finance
  International Business
  Management
  Marketing
  Pharmaceutical Management Studies (Florham Campus only)
• Master of Business Administration (M.B.A.) — Management for Executives
  — General Management
  — Health Sector Management
• Master of Science (M.S.) — Accounting
• Master of Science (M.S.) — Digital Marketing (online only)
• Master of Science (M.S.) — Supply Chain Management
• Master of Science (M.S.) — Taxation (Florham Campus only)
  In addition to the above programs, the College offers a post-M.B.A. graduate certificate. Students with an M.B.A. may receive certification in a second major upon completion of an additional 12 required and elective credits for that major.

Faculty & Staff

Administration
A.J. Rosman, Dean
J.G. Almeida, Associate Dean for Graduate Programs
J. Shurdom, Assistant Dean for Undergraduate Programs and Student Services
P. Caliguari, Director, Executive Programs
R. West, Director, Tax Program

Department of Accounting, Taxation and Law
R. West, Chair; F. Brunetti, D. Buzinkai, M. Calderisi, D. Collier, Z. Fried, A.J. Rosman, H. Rozen, J. Schiff, A. Schultzer, J. Skarbnik, Y. Yan

Department of Economics, Finance and International Business
K. Denning, Chair; P. Anastasopoulos, K. Betz, E. Cowan, E. D jimopoulos, F. Englander, J. Kiernan, R. Kjetsaa, C. Ng, S. Tuluca, B. Zwick

Department of Marketing, Information Systems and Decision Sciences
Z. Wang, Chair; G. Bronson, R. Chandrashekar, Y. Demotta, B. Ertimir, A. Fask, J. Hsu, E. Huser, M. Kieff, Y. Kim, L. Qin, J. Reid, M. Sedaghat, L. Tadj, X. Tan, K.P. Yoon

Department of Management and Entrepreneurship

Rothman Institute of Innovation and Entrepreneurship
T. Pakay, Executive Director
Anthony J. Petrocelli  
College of Continuing Studies  
Florham Campus, Madison, New Jersey;  
Metropolitan Campus, Teaneck, New Jersey;  
Vancouver Campus, British Columbia, Canada; and Wroxton College, Oxfordshire, England  
Lisa R. Braverman, Dean  

The Anthony J. Petrocelli College of Continuing Studies, formerly known as New College of General and Continuing Studies, offers adult learners a convenient and flexible program for their special educational needs.

Recognizing that the student profile on most U.S. campuses is changing dramatically, the University's Petrocelli College was introduced to provide a unified approach and enhanced focus on the adult learner and to continue to position FDU as a leader in providing learning opportunities in a strong academic foundation for students of all ages.

The College features programs integral to the University's commitment to serve "lifelong learners." These include seven graduate degree programs and postbaccalaureate education and nondegree programs, with many credit, noncredit and certification options. In addition, Petrocelli College features precollege programs and two- and four-year undergraduate degree offerings for adults. For the financial planning certificate program and the paralegal studies program go to http://view2.fdu.edu/academics/continuing-education/financial-planning/certificate-program and http://view2.fdu.edu/academics/continuing-education/paralegal-studies/, respectively.

In conjunction with the other colleges, Petrocelli College also is heavily involved with distance-learning initiatives, summer- and winter-session programming and the support and development of credit certificate programs.

While based on the Metropolitan Campus, the College offers programs on both New Jersey campuses, at more than 25 offsite locations throughout the state of New Jersey, at Vancouver Campus, British Columbia, Canada, and at Wroxton College, Oxfordshire, England. Courses are offered in formats, at times and in locations convenient for adult learners.

Programs
- Administrative Science (M.A.S.)
- Homeland Security (M.S.)
- Hospitality Management Studies (M.S.)
- Public Administration (M.P.A.)*
- Service Innovation and Leadership (M.S.)
- Sports Administration (M.S.A.)
- Student Services Administration (M.A.)

Faculty & Staff

Administration
L.R. Braverman, Dean  
T. Swanzey, Associate Dean  
D. Fredericks, Associate Dean for Continuing Education  
E. Alonso, Director, Puerta al Futuro Program and Latino Promise Program  
E.J. Lee, Director, MiraeRo (Korean Studies) Program  
S. Liu, Director, Cheng Gong (Chinese Studies) Program  
W. Roberts, Director, Public Administration Institute  
J. Steiner, Associate Director, Online Programs  
J.H. Behnke, Director of Web, Instructional Technology and Online Learning  
L.S. Nienstedt, Associate Director, School of Administrative Science  
D.L. Ganley, Senior Coordinator for Off-campus Credit Programs  
J. Sahni, Coordinator of Online Programs  
J. Tormey, Director, International School of Hospitality and Tourism Management  
L. Winters, Director of Interdisciplinary Studies Program  

Faculty

*To be offered by the School of Public and Global Affairs.

University College: Arts • Sciences • Professional Studies  

Metropolitan Campus, Teaneck, New Jersey, and Vancouver Campus, British Columbia, Canada  
Vicki L. Cohen, Interim Dean  

University College: Arts • Sciences • Professional Studies, is committed to educating students for the world.

University College emphasizes professionally accredited and career-oriented programs that prepare future leaders to work effectively in a global environment, regardless of profession. Its wide array of programs is strongly grounded in the liberal arts, recognizing that professionals in all fields require a multidisciplinary and multicultural perspective to be successful. The college also stresses experiential and field-based learning through internships, student-directed research, cooperative education and community service that supplement academic instruction, enhance career-related experiences and develop students' social and moral identities as productive citizens.

The mission of University College is facilitated by its location in northern New Jersey’s Bergen County and proximity and ease of access to New York City. Courses and curricula incorporate the unique commercial, scientific and cultural resources of the metropolitan area to create a learning laboratory of exceptional diversity and richness. The resources of this vital cosmopolitan area contribute to all aspects of University College activity and, at the same time, the College maintains a suburban campus atmosphere.

University College offers a wide range of undergraduate and master’s degree programs in such areas as psychology, criminal justice, education, the natural sciences, nursing, engineering and technology, computer science, media and communication and the humanities. Many of its schools offer accelerated and combined undergraduate/graduate degree programs as well as special areas of concentration and minors.

University College is organized into schools to be more responsive to student needs. Specifically, there are nine schools within the college:
• The School of Art and Media Studies covers the disciplines of communication, fine arts and multimedia studies.
The Colleges

- The Lee Gildart and Oswald Haase School of Computer Sciences and Engineering covers the disciplines of civil engineering, computer engineering, electrical engineering, mechanical engineering, computer science, cybersecurity and information assurance, electronic commerce, engineering technology, information technology, management information systems and mathematics. Accredited undergraduate programs are offered in electrical engineering, civil engineering technology, computer science, construction engineering technology and mechanical engineering technology.

- The School of Criminal Justice, Political Science and International Studies covers the disciplines of criminal justice, criminology, private security, political science and international studies. Programs at the undergraduate and graduate level are offered.

- The Peter Sammartino School of Education offers accredited programs for teacher certification in elementary and secondary education, education for certified Teachers, educational leadership, English as a second language, teaching English as a second language, teacher of students with disabilities and learning disabilities consultant.

- The School of the Humanities covers the disciplines of English, philosophy, humanities, foreign languages and interdisciplinary studies.

- The School of Natural Sciences houses the disciplines of biology, biochemistry and chemistry.

- The Henry P. Becton School of Nursing and Allied Health includes the disciplines of nursing and allied health including a Doctor of Nursing Practice (D.N.P.). Accredited programs are offered in nursing, medical technology and radiography.

- The School of Psychology houses the discipline of psychology, including an accredited Ph.D. program in clinical psychology and a Psy.D. program in school psychology.

Programs

- Biology (M.S.)
- Chemistry (M.S.)
- Computer Engineering (M.S.)
- Computer Science (M.S.)
- Cosmetic Science (M.S.)
- Criminal Justice (M.A.)
- Cybersecurity and Information Assurance (M.S.)
- Education for Certified Teachers (M.A.) (Reading Specialist Certification)

- Educational Leadership (M.A.) (Principal/Supervisor Certification)
- Electrical Engineering (M.S.E.E.)
- Electronic Commerce (M.S.)
- Learning Disabilities (M.A.)
  - Teacher of Students with Disabilities/ Learning Disabilities Teacher Consultant Certification
- Management Information Systems (M.S.)
- Mathematical Foundations (M.A.)
- Medical Technology (M.S.)
- Nursing (M.S.N.)
- Nursing Practice (D.N.P.)
- Psychology
  - Clinical Psychology (Ph.D.)
  - Clinical Psychopharmacology (Post-doctoral M.S.)
  - Forensic Psychology (M.A.)
  - General/Theoretical Psychology (M.A.)
  - School Psychology (Psy.D.)
  - School Psychology (M.A.)
- Teaching (M.A.T.)
  - Teacher Certification
    - Preschool to Grade 3: Elementary Education/K–6; Secondary Education
    - Content Area/K–12 (Art, Biological Sciences, Chemistry, Earth Science, English, Mathematics, Physical Science, Social Studies, World Languages)
- Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.)

In addition to the above programs, the College offers a postbaccalaureate respecialization program in psychology certificate. Programs in Language, Culture and Professional Advancement (PLCPA) offers courses in English for Specific Purposes (ESP) for international students and any interested domestic students. These courses are called English for Professional Success (EPS). The College also offers several postbaccalaureate certificate programs training teachers for the Orton-Gillingham approach to reading instruction.

Faculty & Staff

Administration
V.L. Cohen, Interim Dean
J. Boyd, Associate Dean

School of Art and Media Studies
K. Buzzard, Director; Y. Aronson, B. Battistoli, T. LoPonte, M. Roberts, Z. Sun

Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

School of Criminal Justice, Political Science and International Studies
S. Raphaelides, Director; P. Reynolds, Assistant Director; L. Chowdhury, T. Daftary-Kapur, E. Garcia, J. Kenny, K. Kattelman, B. Ojo, E. Panuccio, R. Vodde

Peter Sammartino School of Education

School of the Humanities

School of Natural Sciences
J. Dougherty, Co-director: M. McClary, Co-director: A. Benzeczy, G. Dorata, I.R. Isquith, I. Kumar, M. Leonida, R. Lo Pinto, A. Murphy, G. Nandikotkur, N. Philipps, J. Stout, A. Wallace, M.P. Warunk

Henry P Becton School of Nursing and Allied Health
M. Gutman, Director; S. Colon Cabassa, Associate Director for Undergraduate Programs; M. Rossignol, Associate Director for Florham Programs; M. Rubin, Associate Director for Allied Health; B. Yu, Associate Director for Graduate Program; M. Vargas, Coordinator, D.N.P. Program; J. Couper, H. Egbuonu, N. Edwards-Hammond, C. Garzone-Johnson, E. Graulich, C. Jasko, M. Molloy, T. Moore, S. Palmer, J. Regan-Livingston, A. Sanzari, P. Ukaigwe

School of Psychology

Department of Physical Education
C. Liggett, Coordinator

Programs in Language, Culture and Professional Advancement
M. Mohamad, Director, University College: Arts • Sciences • Professional Studies, Metropolitan Campus and Vancouver Campus
Admissions

General Information
Students seeking to register for classes or to enroll in any graduate degree or certificate program offered at Fairleigh Dickinson University must formally apply for admission.

An applicant seeking a graduate degree or certificate may enroll as a matriculated or nonmatriculated student. An applicant who is not seeking a graduate degree or certificate may enroll in classes for credit as a nondegree student, or as a visiting student or auditor. Applications should be sent to the Graduate Admissions Office at the campus (Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey) the student plans to attend. Candidates may apply for admission to one campus only. For information about the School of Pharmacy and Health Sciences Sciences go to www.fdu.edu/pharmacy.

The University reserves the right to deny admission to any applicant who, in the judgment of the Admissions Committee, may not benefit from Fairleigh Dickinson University's educational programs or whose presence or conduct may impact negatively on its program(s). The University also reserves the right to refuse enrollment in or admittance to any course to any admitted student who engages in conduct deemed by the University, in its sole discretion, as interfering with the learning experience or safety of any person in the University community.

Applications are processed on a rolling basis with the exception of the Ph.D. program in clinical psychology, which has a December 15 deadline; the Psy.D. program in school psychology, which has a March 1 deadline; the M.A. program in school psychology, which has a March 15 deadline; and the M.A. in forensic psychology, which has a May 15 deadline. These programs are offered only at the Metropolitan Campus.

Students are encouraged to apply as early as possible to allow time to complete the application process prior to the start of classes. The requirements for matriculation vary with each program. However, all candidates for matriculation must submit a Graduate Application Form, a nonrefundable application fee and official transcripts from all previously attended colleges and universities verifying completion of a bachelor's degree at an accredited institution of higher learning. Graduate entrance examinations, including the Graduate Record Examinations (GRE), Graduate Management Admission Test (GMAT), Miller Analogies Test (MAT) and National Teacher Examination (PRAXIS) and letters of recommendation are required for admission to some graduate programs. Personal interviews are not generally required but may be requested as part of the admissions process. Students must check the specific admissions requirements for the program in which they are interested.

Applicants who wish to enroll as nonmatriculating or nondegree students may register for classes on the basis of unofficial documents with the approval of a graduate faculty adviser.

A satisfactory score on the Test of English as a Second Language (TOEFL) is required of those applicants whose native language is not English and who have not completed their baccalaureate degree at an English-language college or university.

Nonmatriculated Students

Matriculated Students (In a Degree or Certificate Program)
An applicant for admission to a graduate degree or certificate program may be accepted as a matriculated student if the applicant’s admission file is complete, including all required documents, and if the student is recognized as meeting all requirements for admission to the program. (Note: Requirements for admission to a certificate program might be different from those required for admission to a degree program.)

In certain cases, with the approval of a graduate faculty adviser, a matriculated student may be permitted to enroll in graduate classes prior to the receipt of official documents or completion of specific prerequisite course work. Or, a matriculated student with academic deficiencies may be admitted on probation. Students matriculating in this manner may have a specific time or credit limit imposed upon their acceptance and subsequent reregistration.

Only matriculated graduate students enrolled in a degree program or in programs leading to state certification are eligible to apply for financial aid.

Nonmatriculated Students (Intending to Matriculate in a Degree or Certificate Program)
An applicant for admission to a graduate degree or certificate program may, at the discretion of the department or school, be accepted as a nonmatriculated student if the applicant’s admission file is incomplete, lacking required documents, but contains documents affirming completion of a bachelor's degree and the signature of an authorized graduate adviser. A nonmatriculated student enrolling in graduate classes is permitted a 9-credit maximum.

A nonmatriculated student is reviewed for matriculation when all required documents are received by the Office of Academic Records.

A nonmatriculated student is not eligible to apply for financial aid.

Nondegree- and Noncertificate- Seeking Students

Students Enrolled in Classes for Credit
A student who does not intend to enroll in a graduate degree or certificate program may, at the discretion of the department or school, register for individual graduate classes for credit and is admitted with a 9-credit maximum on the basis of documents affirming completion of a bachelor's degree and the signature of an authorized graduate adviser. A nondegree or noncertificate student enrolled in classes for credit may utilize those credits to fulfill requirements for a degree or certificate program if he/she applies and is accepted as a matriculated student.

A nondegree/noncertificate student is not eligible to apply for financial aid.
Admissions

Visiting Students
(Matriculated at Another College or University and Enrolling in Classes for Credit)
A visiting graduate student is admitted on the basis of a Certificate of Eligibility Form signed by an authorized adviser at the college or university where he/she is matriculated.

A visiting student is not eligible to apply for financial aid at Fairleigh Dickinson University. However, he/she may be eligible to apply for financial aid through his/her home university by utilizing a consortium agreement.

Auditor (Students Enrolled in Credit Classes Who Do Not Receive Grades or Credits)
To audit a class, no academic documentation is required. The student must present an Audit Form, signed by the faculty member teaching the class, to the Office of Enrollment Services. If an audit student enrolls in classes offered through the Office of Continuing Education, he/she registers through the Office of Continuing Education and is eligible to receive a Certificate of Attendance upon completion of the program.

An auditor pays for 1 credit at the regular tuition charge and is not eligible to apply for financial aid. No grade is given for the course audited; therefore, it cannot be used as future credit. Special rates may apply for FDU graduates and senior citizens.

Readmission for Graduate Study
Matriculated students who interrupt their studies for one or more semesters, without requesting a leave of absence in writing, must request reinstatement by submitting an Application for Readmission. (No application fee is required.) Readmitted students are governed by the Graduate Studies Bulletin issued for the academic year of reinstatement and are subject to the current admissions and curricular requirements for the program to which they are seeking readmission.

Change of Program
A matriculated student who is currently enrolled in a graduate program at one college and wishes to change the program to one that is offered in another college within the University must submit a new application and all required documents to the Graduate Admissions Office at the campus where the program is being offered.

Transfer Credit
Graduate credits earned at another accredited institution may be accepted in transfer, in accordance with the curricular requirements of the degree program and the academic policies of the colleges. Generally, transfer credit will be considered for those courses completed within the last 5 years in which a grade of B or better has been earned. A maximum of 9 credits may be accepted in transfer.

Academic course waivers are available in some graduate degree programs, including the M.B.A., M.S. in computer science, M.S. in information systems and M.S. in electronic commerce. Graduate prerequisite course work may be waived for students who have completed relevant undergraduate course work, with appropriate grades, within the last five years.

Application for transfer or waiver credit is made through the academic school or department in conjunction with the Office of Enrollment Services. To request a transfer or waiver evaluation, the student must submit an official transcript and course description. A request for an official evaluation of transfer or waiver credit should be concurrent with the student’s admission to the program. In some degree programs, students may be required to submit challenge exam scores to receive transfer or waiver credit.

International Students
International students seeking admission to any graduate program at FDU may apply online at fdu.edu/apply and submit their official supporting documents to: Office of International Admissions 1000 River Road, T-KB1-01 Teaneck, NJ 07666 Phone: 1-201-692-2205 Fax: 1-201-692-2560 Email: global@fdu.edu

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/apply 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, Mauritania, 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 Pearson’s PTE-A is required.

Students who are unable to meet the University’s minimum English-proficiency requirement may apply for the intensive English Language 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-1 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*

Fairleigh Dickinson University administers a variety of academic and need-based funding from federal, state, and University sources. Financial aid is available to qualified full-time and part-time matriculated students at Fairleigh Dickinson University. A graduate student is considered to be enrolled full-time when registered for a minimum of 9 credits per semester. New and returning students are expected to file the Free Application for Federal Student Aid (FAFSA) no later than April 15. The FAFSA must be filed EVERY year.

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

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

All available sources and types of academic and need-based funding are detailed throughout this section.

University-funded Programs

University Provost's Scholarship Program for Graduate Study

All students admitted to a master's program beginning with the spring 2013 semester and who plan to register for a minimum of 6 credits may apply. Eligible candidates must have a minimum undergraduate grade point ratio of 3.00 (on a 4.00 scale) and standardized test scores acceptable for admission. The University Provost's Scholarship awards range from $100.00 per credit to $300.00 per credit and cannot be combined with other University scholarship or assistantship. Students enrolled in graduate study as part of a combined (bachelor's/master's) degree program or enrolled in a master's program with a nonstandard tuition rate are not eligible. More information about the University Provost's Scholarship Program for Graduate Study, including the list of eligible master's programs and maintenance criteria for scholarship awards, can be found on the University Provost's Scholarship webpage www.fdu.edu/provostscholarship or for more information email provostscholarship@fdu.edu.

Combined Degree Advantage Program Scholarship

Students admitted into the University's combined degree program are able to earn a bachelor's and a master's degree in five years.

Students in their fifth year who are in the graduate program are eligible for a Combined Degree Scholarship equal to 40 percent of tuition charges. However, students who receive other institutional assistance and those in discounted programs are not eligible.

University Fellowships

Fairleigh Dickinson University funds fellowships for full-tuition scholarships (up to 9 credits per semester). Fellowships are awarded by the academic department/school in which the student is studying or planning to study. All inquiries should be directed to the appropriate academic program administrator. The receipt of a fellowship supercedes other FDU funding and will result in the reevaluation of any existing financial aid award.

Teaching Fellowships

Students receive a fellowship of one-half tuition plus $2,000 during the first and second years of the program and one-half tuition during the third year of the program. Some research and clinical practice have an additional stipend included, and various additional fellowships are available for students who meet certain conditions.

Graduate Administrative Assistant Fellowships

Recipients of graduate administrative assistant fellowships assist with the administration of programs within admissions, career management and other administrative areas of the University for 720 hours per academic year (360 hours per semester). Stipend compensation is $4,000.00 per academic year ($2,000.00 per semester).

University-funded Grant Programs

Alumni Incentive Grant

Effective fall 2001, an alumnus/a of the University may be eligible for the Alumni Incentive Grant in the amount of $100 per credit. The alumnus/a must be matriculated. The grant cannot be used in conjunction with any other University tuition discount and/or University aid program. Contact the Graduate Admissions Office for further details.

Privately Funded Scholarships

Johnson & Johnson Scholarship

The Johnson & Johnson Scholarship provides funding for doctoral candidates enrolled in the Ph.D. in clinical psychology program at the Metropolitan Campus, Teaneck, New Jersey, who demonstrate a commitment to enhancing health care in certain targeted counties of New Jersey. Inquiries should be made to the academic administrator of the clinical psychology program.

Sammartino Scholarship

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

Nurse Faculty Loan Program

The Henry P. Becton School of Nursing and Allied Health offers the Nurse Faculty Loan Program (NFLP). Students who have an interest in becoming nurse faculty after having finished the Master of Science in

*Information within the Financial Aid and Scholarships section is subject to change. Students should contact the Office of Financial Aid for any revisions or additions.
Financial Aid and Scholarships

Nursing program or the Doctor of Nursing Practice program may borrow for tuition and fees (less amounts received from other sources). Applicants should arrange for an interview with the project director, Prof. Teresa Moore, at TCMoore@fdu.edu.

Federally Funded Programs

Financial aid from federal sources is available for eligible students from the Federal Direct Loan program. The Free Application for Federal Student Aid (FAFSA) must be filed by April 15 each year for consideration. Eligibility is based on enrollment and satisfactory progress toward completion of the degree program.

Federal Veterans’ Educational Assistance Programs

Veterans’ Education Benefits

Veterans’ educational benefits may be available to students who have served in the U.S. Armed Forces. More information may be found at the Department of Veterans Affairs GI Bill® website: http://www.gibill.va.gov/.

Post 9/11 GI Bill

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

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

This program will provide the following benefits for eligible individuals:

- A monthly housing allowance based on the Basic Allowance for Housing for an E-5 with dependents at the location of the school.
- An annual books-and-supplies stipend of $1,000.00 paid proportionately based on enrollment.

If students are enrolled exclusively in online training they will not receive the housing allowance. If students are on active duty, they will not receive the housing allowance.

The GI Bill

As provided under Chapter 30 of the Montgomery GI Bill, students that entered the military after June 30, 1985, are eligible for educational benefits if they elected to reduce their monthly salary by $100.00 for the first 12 months of active duty.

VA Vocational Rehabilitation

The VA Vocational Rehabilitation Bill— Chapter 31 incurs the cost of tuition, fees and books. Eligible veterans must apply directly with the Department of Veteran’s Affairs, 20 Washington Place, Second Floor, Newark, New Jersey 07102.

Survivors’ and Dependents’ Educational Assistance Program (DEA – Chapter 35)

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

Federal Tuition Assistance

Military Tuition Assistance is a benefit paid to eligible members of the Army, Navy, Marines, Air Force and Coast Guard. Congress has given each service the ability to pay up to $250.00 per credit for the tuition expenses of its members. A member is eligible for up to $4,000.00 a fiscal year in Federal Tuition Assistance benefits.

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

Other Veterans’ Affairs Educational Benefits

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

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

For additional information regarding veterans’ educational benefits, please contact the State of New Jersey Department of Military and Veteran Affairs State Approving Agency, P.O. Box 340, Eggert Crossing Road, Trenton, New Jersey 08625 directly.

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 varying interest rates. There is a loan fee paid by borrowers at the time of disbursement, which, at the time of printing, is 1.069 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 deter-
mon each June for new loans made for
the upcoming award year (July 1 to the fol-
lowing June 30). Each loan has a fixed in-
terest 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 4.276 percent (subject
to change). Eligibility for the Direct Gradu-
te PLUS loan is based on a credit review.

Important Information
About Financial Aid

Terms and Conditions of
Financial Aid Awards
Students awarded financial aid from Uni-
versity, federal and/or state sources will
receive a Financial Aid Award Notice.

Financial aid offers are based on full-
time attendance (9 credits/semester for
graduate students) and anticipated housing
plans as reported on the FAFSA. Students
must inform the Office of Financial Aid
immediately, in writing, of any changes in
enrollment or housing plans so that finan-
cial aid may be reevaluated accordingly.

Financial aid offers are conditional
based on receipt of any requested informa-
tion by the Office of Financial Aid. Finan-
cial aid applicants may be required to sub-
mit additional documentation, which may
lead to revisions in the financial aid awards
offered.

Award offers are contingent upon main-
taining satisfactory academic progress to-
ward completion of the degree program.
Satisfactory academic progress reviews are
performed at the conclusion of the spring
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/.

The University awards grants and
scholarships from University operating
funds and reserves the right to substitute
funding received from private or endowed
sources. In such an event, a revised Finan-
cial Aid Award Notice will be sent de-
tailing the substitution.

Financial aid funding will be used
toward balances owed to the University,
including, but not exclusively, tuition,
room, board, medical insurance, fees,
fines, etc. If students do not wish to have
funding from federal sources used to pay
“nondeducational expenses” such as parking
fines, they must notify the Office of Enroll-
ment Services in writing.

Receipt of financial assistance from any
sources may affect eligibility for financial
aid as detailed on the award notification.
The Office of Financial Aid must be in-
formed of the receipt of additional awards
not already noted.

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

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

Students who receive need-based finan-
cial aid from any source are eligible to
apply for a renewal of this aid. To be eligi-
ble for a renewed need-based financial aid
package, the student must:
1. File the FAFSA application no later
than April 15 (including the correct Fed-
eral School Code: 002607 for the Metropoli-
tan Campus, Teaneck, New Jersey, and
004738 for the Florham Campus, Madi-
on, New Jersey);
2. Respond to all requests for informa-
tion/documentation by the Office of Finan-
cial Aid and meet eligibility requirements
as determined by the U.S. Department of
Education and the University; and
3. Maintain “Satisfactory Academic
Progress” as mandated by the U.S. Depart-
ment of Education.

Satisfactory Academic
Progress
Detailed information about Satisfactory
Academic Progress may be found at
http://view2.fdu.edu/admissions/graduate-
admissions/graduate-financial-aid/
graduate-satisfactory-academic-progress/.

Tuition Payment Options
It is possible that the financial aid package
may not cover all University expenses. The
University does not guarantee the ability to
meet a student’s full financial need. As a
result, there may be an amount left be-
tween the federal family contribution, the
amount of aid offered by the University
and the total cost of education.

Fairleigh Dickinson University
Deferred Payment Plan
The deferred payment plan allows a stu-
dent to make an initial 25 percent down
payment on the total charge for the fall or
spring semester. The balance is then paid
in three monthly installments. A $45 fee
per term is assessed for this plan.
Registration, Tuition and Billing Information

Registration, Tuition and Billing Information

Registration: Fall, Spring and Summer
New students are notified concerning registration procedures by the Admissions Office. Continuing students receive advanced registration privileges. This advanced registration begins in April for summer and fall terms and mid-November for spring and winter terms.

All students should register through their home campus. Students will not be permitted to register for courses unless all financial obligations to the University have been satisfied. Academic records also will be withheld until all financial obligations have been resolved.

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

Fees and charges are for the academic year 2017–2018 or for the specific service described, unless otherwise stated. New tuition and fees charges for 2018–2019 will be announced in the spring of 2018. 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)............$1,245.00

Silberman College of Business,
- All Programs (per semester, per credit)............$1,305.00

Anthony J. Petrocelli College
- Continuing Studies
  - All Programs (per semester, per credit)............$1,245.00

University College: Arts • Sciences • Professional Studies
- Master's Level: Education, History, Political Science, International Studies, Natural Sciences, Psychology (per semester, per credit)...............$1,245.00

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)...............$1,245.00

University College: Arts • Sciences • Professional Studies
- Doctoral Programs (per semester, per credit)........$1,361.00

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.....$40,398.00
- Dissertation*...........................$4,849.00
- Internship Charge**....................$250.00
- Dissertation Maintenance...........$490.00
- Psy.D. in School Psychology (5-year Program)........$40,398.00
- Dissertation per credit............$1,361.00
- Summer Internship Charge**.............$250.00
- Dissertation Maintenance...........$490.00
- Psy.D. in School Psychology (3-year Program)
  - per credit.............................$1,361.00
  - Dissertation Maintenance...........$490.00
- Doctorate of Nursing Practice
  - per credit.............................$1,361.00
- Program Fee............................$225.00
- Doctor of Pharmacy Program......................$38,700.00
- Doctor of Pharmacy Dual Degree Program (M.S./M.H.S./M.A. Track)...............$44,010.00
- Doctor of Pharmacy Dual Degree Program (M.B.A./M.P.A. Track)...............$43,320.00
- E-learning Fee
  - (per year)............................$1,270.00
- Student Services Fee
  - (per year)............................$325.00

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..................$135.00
  - Proficiency Exam..........................$255.00
- Application Fee..........................$40.00
- Graduation Fee............................$235.00
- Doctoral Degree.........................$475.00
- Technology Fee
  - Full-time..................................$888.00
  - Part-time..................................$414.00

Health and Major Medical (Mandatory)**
- International Students (Full-time and part-time)
  - Full year..................................$1,555.00
  - Spring semester only......................$964.00
  - Domestic (Full-time only)
  - Full year..................................$1,555.00
  - Spring semester only......................$964.00

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.

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

*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 students with documentation of alternative coverage. International students cannot waive the fee.
Corporate Reimbursement Deferred Payment Plan
Students who receive corporate reimbursement may be eligible to defer their tuition payment until 45 days after the completion of the course. There is a 4 percent service charge for this accommodation.

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

Access information is available on the enrollment services website at http://inside.fdu.edu or directly on the student's WebAdvisor account.

The processor will charge a nonrefundable 2.75 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.

Students may access their account balance using the University's WebAdvisor system or if students need assistance with determining their student account balance, they may contact the Office of Enrollment Services by calling:
• 201-692-2213 for the Metropolitan Campus or
• 973-443-8600 for the Florham Campus.

Terms of Payment
The payment deadline is established as August 15 for the fall semester and January 15 for the spring semester. By these dates, students must have paid their tuition, room and board and fees charges in full or have been enrolled into an approved payment plan. All students are expected to pay summer and winter sessions’ charges on their day of registration or prior to the term’s start date. Payments may be made by check made payable to Fairleigh Dickinson University and mailed to the Office of Enrollment Services on the student’s home campus. Students may also pay in person on either of the two campus locations. Refer to “Credit Cards” for additional information on how to make a payment using a third-party service provider.

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

Payment Deadline
Please adhere to payment deadlines and policies established by the University for each semester. Failure to comply will result in late charges.

Refund Schedule: Fall and Spring Semesters, 12-15 Weeks
Prior to first day of semester* 100% cancellation of tuition and course-associated fees.
During first week of semester* 90% credit for tuition charges only.
During second week of semester* 80% credit for tuition charges only.
During third week of semester* 60% credit for tuition charges only.
During fourth week of semester* 40% credit for tuition charges only.
Grade of W recorded for course dropped.
During fifth week of semester* 20% credit for tuition charges only.
Grade of W recorded for course dropped.
After fifth week of semester* NO REFUND OF TUITION AND FEES. Withdrawal grade based on University policy, recorded for deleted courses.
During final two weeks of semester Withdrawals for the term are no longer accepted.

Refund Schedule for Modular Courses
Three-, Four- and Five-week Modules
Withdrawal prior to first day of class*.................................100%
Withdrawal during first week of class*................................. 50%
Withdrawal thereafter* NO REFUND DUE STUDENT.

Six-, Seven-, Eight-, Nine-, and 10-week Modules
Withdrawal prior to first day of class*.................................100%
Withdrawal during first week of class*................................. 75%
Withdrawal during second week of class*............................ 50%
Withdrawal thereafter* NO REFUND DUE STUDENT.

Refund Schedule: Summer Six-, Nine- and 12-week Sessions
Prior to first day of session* and 12-week session 100% cancellation of tuition and course-associated fees.
During first week of session* 75% credit of tuition only.
During second week of session* 50% credit of tuition only.
After second week of session* NO REFUND DUE STUDENT.

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

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

*Actual dates for modular courses and summer and winter sessions are available upon request and posted in the enrollment services areas of each campus.
Late Payment Charges
A Late Payment Charge will be collected at the time any payment (full or partial) is applied to an outstanding balance according to the following schedule: Late payment charge is indicated in italics under the length of time indicated.

Payment Made in Period
Fall Semester
August 18–October 5
2% of payment
October 6–November 2
4% of payment
November 3–November 30
6% of payment
December 1–January 3
8% of payment
January 4–January 31
10% of payment
February 1 and thereafter
12% of payment

Spring Semester
January 18–February 28
2% of payment
March 1–31
4% of payment
April 1–30
6% of payment
May 1–31
8% of payment
June 1–30
10% of payment
July 1 and thereafter
12% of payment

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

Winter Session
Week 1–Week 3 of Session
Students who pay their intersession charge after the third week of the term will be assessed a 6% late fee in the payment made. However, if the student stops attending the University and the account is taken over by the collections department, a 12% penalty will be assessed to the unpaid balance.

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

Employee Educational Tuition Grants (ETG)
Employees or dependents of employees must apply for an Educational Tuition Grant (ETG) through the Office of University Human Resources prior to being registered. Upon approval, a voucher will be issued to the registrant to be presented along with the registration form at the Office of Enrollment Services/Registration. Employees are responsible for fees. The tuition credit will be applied to employee's/dependent's account 3–4 weeks into the term by the Financial Aid Office.
Student Life

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

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

This catalog provides a brief overview of services, policies, procedures and regulations. For more detailed information, please see the Student Handbook on FDU’s website (www.fdu.edu).

Dean of Students

The dean of students provides administrative leadership, supervision and coordination for the division of student affairs. The division is committed to enhancing the quality of life for the students and provides for holistic student development. The division is the catalyst for creating and maintaining a campus climate that fosters intellectual, physical, spiritual, psychological, professional and social development of students and represents students’ needs to the University administration and the faculty.

Campus ministry, residence life (not at the Metropolitan Campus), campus/student life, health services and student counseling and psychological services are encompassed in the student affairs division. The dean’s office oversees student leaves of absence. The overall coordination of disciplinary matters, student government advising, student affairs publications, the orientation of new students and commencement exercises are among the responsibilities of the Office of the Dean of Students.

The Dean of Students Office is available to respond to all aspects of the students’ needs and should be used to mediate and resolve difficulties.

Wellness

Wellness at the University includes both student health services and student counseling and psychological services. In-house referrals between student health services and the counseling services help to ensure that students receive these comprehensive services in a confidential setting.

Student Counseling and Psychological Services

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

The student counseling and psychological services staff offers groups and workshops to the campus community on a variety of interest areas such as stress management, study skills, time management, drug abuse, etc.

Student counseling and psychological services also offers holistic approaches to stress management such as Pet Therapy. Students are provided opportunities to destress and experience living more fully in the moment with certified therapy dogs.

Student Health Services

For information on Student Health Services go to page 25.

Campus Life

Florham Campus

Office of Campus Life

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

The Office of Campus Life is responsible for residential and housing services, student activities, Greek life, multicultural affairs, First Year Experience, community service and student clubs/organizations.

The office is located in the Student Center. The Student Handbook, which includes rules, regulations and helpful information necessary for campus life, is available on the FDU website (www.fdu.edu).

Residence Halls

Park Avenue: This building has 312 beds in apartment-style suites of four. Each suite has two bedrooms, two bathrooms, a kitchen area and a common living room. The building is reserved for upperclass housing.

Rutherford Hall: Named after the University’s first campus, this 293-bed residence hall opened in September 2003. Rutherford Hall houses upperclassmen in double bedrooms with a private bath. All rooms are climate controlled. Laundry, vending and trash facilities are located near the elevator on each floor. All floors have a common lounge.

The Village: The Village is composed of nine buildings and is used for upperclass housing. Each building consists of 10 six-person suites, a bathroom and three bedrooms. This area is coed by suites.

Twombly Halls: Florence and Hamilton Twombly Halls are traditional residence halls that provide double-room occupancy and a common hall bathroom facility. Both buildings primarily house first-year students. The Twombles are coed by floors.


**Student Life**

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### Metropolitan Campus

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

Some of the services that the Office of Student Life provides are management of the Student Union Building, supervision of more than 85 student organizations, leadership development, community service, Greek life, campus events and traditions, Student Union Building employment, Information Desk, Knight Club gaming area, Knight Owl concessions, Metro Lounge study area, student advocacy, Student Government Association fiscal operations and much more.

The Office of Student Life is located on the main level of the Student Union Building.

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

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

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

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

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

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

Visit the residence life website at www.fdu.edu/reslifemetro.

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

As members of the division of student affairs, the chaplains are available for consultation on all matters, incidental or serious. Working with his colleagues in the division, the chaplain facilitates students’ continued wellness at the University.

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### Student Counseling and Psychological Services

The Office of Student Counseling and Psychological Services (S-CAPS) complements the academic experience of the student body by facilitating healthy personal, social and intellectual development of student. Life circumstances, skills deficits and/or mental health problems may at times interfere with a student’s ability to successfully achieve important academic and life goals. S-CAPS’ unique environment and role allow it to help students identify their problems, manage their emotions, learn new problem-solving skills and successfully meet the academic and social challenges of University life. This is accomplished by offering:

No cost (included in/covered by students’ general mandatory fees) psychological counseling and psychotherapy, diagnostic evaluation, advocacy and targeted mental health referrals. Developmental, preventative and remedial counseling is provided to University students; consultation, educational and training services to the University community (staff, faculty and administration); and experiential workshops on a wide variety of essential academic and life skills (e.g., assertiveness, stress management, sleep hygiene, public speaking, health relationships, organizational skills, mindfulness and meditation, test anxiety, loss and grief, substance abuse prevention/awareness, suicide awareness and prevention and “How to Refer Distracted Students”).

The staff of student counseling and psychological services seeks to promote human welfare. Consistent with this principle, they believe that every person should be treated with dignity and respect. They value acceptance and appreciation for all differences among people including those of race, gender, sexual orientation, ethnicity, national origin, functional ability, socioeconomic status, age, religious affiliation and other characteristics that comprise identity. They also strive to provide respectful treatment to students of any background. The S-CAPS staff believes that valuing cultural diversity facilitates human growth and development and enhances the quality of life on campus and in the community. Therefore, they are committed to enhancing the awareness and understanding of cultural diversity, incorporating this philosophy into their professional activities and clinical services.
Student Health Services

For information on Student Health Services see this page.

Career Development Center

Career development provides comprehensive services, programs and activities designed for the University community.

Career advising is offered for students to explore their personal values, interests, abilities and career alternatives. Advisers are available to help evaluate students’ activities, skills and past experiences and relate these to future employment. Assistance with resume writing, interview skills and job-search strategies are provided to help students with their job search.

Students needing internships, part-time, full-time, summer or volunteer employment can use the career development job-search websites to access current job postings. Students and alumni can connect with employers through career fairs, employee-networking events, career-related workshops and on-campus recruiting.

Dining Services

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

Dining hall continuous hours of operation are:

Monday–Thursday*
7:30 a.m.–9:30 p.m.

Friday*
7:30 a.m.–7:30 p.m.

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

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

*Hours subject to change at discretion of University.

International Student Services

The Office of International Student Services serves the international community at the Metropolitan Campus and the Florham Campus. The department offers a wide array of programs and services to more than 1,000 international students from approximately 90 countries. Orientation programs are presented to facilitate the adjustment of international students to the American system of education and to offer insight into the cultural life of the United States. Cultural and social programs are offered for students to experience the surrounding New York/New Jersey metropolitan area.

Through immigration services, the department helps students maintain their status in compliance with immigration regulations and apply for the immigration benefits for which they are eligible. All international students are required to purchase the University Group Medical insurance.

Student Health Services

The health services’ goals include keeping students well, providing care when they are not well and empowering students to make informed decisions about their health. Nurse practitioners and professional nurses assist students with their health concerns.

As both a resource and health clinic, student health services provides students with information regarding available medical and health-related services. Programs on wellness and health are offered as part of the student learning experience. All students are welcome.

Requirements for health and immunization records may vary, depending on the academic program in which the student is enrolled and the age of the student. Personalized requirements and details are available at http://view2.fdu.edu/metropolitan-campus/student-health-services/ and at http://view2.fdu.edu/florham-campus/health-services/.

The University requires each full-time F1 international graduate student and most domestic graduate students to carry a University-sponsored accident policy and sickness and major medical coverage. As accident benefits are mandatory, the premium is included in college fees. If a domestic student has private sickness and major medical coverage, the University-sponsored program may be waived. A copy of the student’s private insurance card then must be submitted to www.firststudent.com. International students must present relevant documentation to the International Student Services Office. The cost of the University-sponsored insurance is kept low to make basic health insurance available to all students.

The student health service on each campus is staffed with competent, experienced registered nurses and nurse practitioners. For major emergencies and surgery, the neighboring community hospitals are used. A student may, however, choose his or her own physician at any time, either in or out of the hospital as long as he or she is in network.

Center for Psychological Services

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

Students can feel comfortable applying to the center as it functions on a purely confidential basis, and the center’s records are not part of any University database. Also, for the student, fees may be reduced to a minimal level when indicated.

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

**Athletics**

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

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

**Metropolitan Campus**

The Metropolitan Campus offers competition on the prestigious and highly competitive National Collegiate Athletic Association (NCAA) Division I level. The Knights sponsor the following eight men’s teams: baseball, basketball, cross country, golf, soccer, tennis, and indoor and outdoor track and field. The following 11 varsity sports are sponsored for women: basketball, bowling, cross country, fencing, golf, soccer, softball, tennis, indoor and outdoor track and field and volleyball. The University’s commitment to women’s athletics is reflective in the addition of women’s soccer and softball teams in the 2000–2001 academic year and women’s bowling in 2002–2003. The addition of these new teams brings sports sponsorship to 18. Athletic scholarship assistance is offered in all sports to deserving student-athletes. Prospective student-athletes are encouraged to contact the athletics department for further information.

FDU is a member of the Northeast Conference (NEC) and has won the NEC Commissioner’s Cup, emblematic of the overall success of the athletic program, on six occasions, which is more times than any other league school. In the fall of 2001, the men’s soccer team returned to national prominence, advancing to the Elite Eight of the NCAA Division I Championships. The bowling team participated in the NCAA National Championships six times, winning the National Championships in 2006 and 2010. Winning the 2005 NEC Championship propelled the men’s basketball team to the NCAA Tournament where they trailed eventual NCAA runner-up Illinois by one at halftime.

FDU’s Metropolitan Campus also holds membership in the Eastern Collegiate Athletic Conference, the New Jersey Association for Intercollegiate Athletics of Women, the National Intercollegiate Women’s Fencing Association, the Eastern Intercollegiate Bowling Conference and the Intercollegiate Amateur Athletic Association of America.

An important facet of the University’s commitment to athletics is the George and Phyllis Rothman Center on the banks of the Hackensack River. The Rothman Center features facilities for the varsity teams as well as for intramural sports, personal fitness and cultural and social events. The center has the versatility to accommodate many different activities. Four basketball courts, three volleyball courts and two tennis courts, along with three racquetball courts, a weight room and a six-lane, 200-meter track, allow the University a wide variety of recreational activities.

The fitness center, a state-of-the-art facility, features basketball courts, cardiovascular equipment, circuit-training equipment and a commuter lounge. In the spring of 2004, a new softball field was opened, giving the Knights a home with lighting and seating for 500 on the Hackensack side of campus.

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

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

**Florham Campus**

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

Women athletes compete in basketball, cross country, field hockey, golf, lacrosse, soccer, softball, swimming, tennis and volleyball.

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

Robert T. Shields Field is the 4,000-seat home of Devils football, field hockey, men’s and women’s lacrosse and men’s and women’s soccer. It has a state-of-the-art scoreboard and press box atop the bleachers. The playing surface is field turf, which allows games to be played in any weather.

The athletic department sponsors intramural competition in volleyball, basketball, tennis, wrestling, softball, touch football, bowling, golf, cross country and swimming. Several recreation and fitness programs, such as aerobics, karate and dance, also are offered by the athletic department. A majority of students at the Florham Campus are actively involved in the intercollegiate and intramural programs that are offered.
Family Educational Rights and Privacy Act (FERPA)

As a recipient of federal educational funds, Fairleigh Dickinson University is bound by the requirements of the Family Educational Rights and Privacy Act (FERPA). Subject to specified exceptions, 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 and class-attendance 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, then 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. This right of review and challenge does not include the right to challenge grades; that right is provided through the University’s Grade Appeal Procedures policy. The University maintains a log which identifies persons who have accessed a student’s record. Students have a right to review logs.

FERPA does not require the University to have student consent to disclose personally identifiable information to parents of students who are listed as dependents on their parents’ federal income tax returns. In the event of a health or safety emergency, the University may disclose personally identifiable information, without student consent, if the information is needed to protect the health or safety of the student or other persons. The University may disclose to the parents of students below 21 years of age disciplinary action for illegal use or possession of alcohol or illegal drugs. FERPA permits the University to disclose the final outcomes of student disciplinary hearings, including sanctions, to victims of misconduct, if they so request, when the misconduct constitutes a crime of violence or a nonforcible sex offense.

FERPA allows the University to disclose students’ directory information but requires the University to give students an opportunity at the start of each academic year to request that the University not disclose their directory information. Directory information is information such as name, address, telephone number, date of birth, dates of attendance, major field of study, class level, registered credits for the current term, major field of study, honors and awards, degree conferred, participation in sports and recognized activities.

Student Regulations

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

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

Students who accept enrollment at the University are expected to live up to the highest standards of academic integrity, conduct themselves with decorum and responsibility, abide by the rules and regulations promulgated from time to time by the University and otherwise comply with the requirements of the applicable Code of Student Rights, Responsibilities and Conduct as stated in the Student Handbook, available from the Dean of Students Office and on the FDU website (www.fdu.edu). The University reserves the right to discipline, including dismissal or suspension, any student who fails to comply with the foregoing.
**Prohibited Discrimination, Harassment and Related Misconduct**

The University is committed to maintaining a fair and respectful environment for living, work and study. To that end, and in accordance with federal and state law, the University prohibits any member of the faculty, staff, administration, student body, volunteers or visitors to campus, whether they be guests, patrons, independent contractors or clients, from harassing and/or discriminating against any other member of the University community because of that person’s race, creed, color, religion, handicap/disability, gender, 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 race, creed, color, religion, handicap/disability, gender, 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 who feels subjected to harassment or discrimination in any manner should immediately report the matter to the assistant dean of students as they serve as deputy Title IX coordinators for their respective campuses.

Employees should report cases of harassment to the director of benefits and training in the Human Resources Office located in Dickinson Hall on the Metropolitan Campus and can be reached directly at (201) 692-2704. In addition, employees can report to his/her supervisor or anyone employed in a supervisory capacity at the University.

If for any reason, including the unavailability of one of the deputy Title IX coordinators or the complainant’s discomfort with their designated deputy Title IX coordinators, complaints of discrimination and/or harassment under this policy can be made to the associate vice president of human resources (University Title IX coordinator), located in Dickinson Hall on the Metropolitan Campus and can be reached directly at (201) 692-2706. This includes complaints concerning administrators, supervisors, employees, staff, faculty, volunteers, students and visitors.

Please refer to the University’s Prohibited Discrimination, Harassment and Related Misconduct Policy for more information regarding the adjudication process. The policy is located on the following link: http://fdu.edu/hr/nondiscriminationandantiharassmentpolicy.pdf.

**Clery Act**

In accordance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act or Clery Act, FDU’s Department of Public Safety reports information relating to crime statistics and security measures to the appropriate government agencies. These statistics are also open for public inspection. Current and prospective students, University employees and job applicants are also advised of the availability of these reports. The University will provide a paper copy of the report upon request. Visit the following link for more information: http://view2.fdu.edu/about-fdu/facts-about-fdu/clery-act-statistics/.
Academic Support and Research

Intellectual life at a university goes beyond the classroom. Each campus of FDU has its own libraries, computer centers and research facilities, which foster the intellectual growth of students outside the classroom.

Academic Support and Student Services Centers

The Academic Support Center at the Florham Campus, Madison, New Jersey, and the Academic Resource Center at the Metropolitan Campus, Teaneck, New Jersey, help students develop excellence. Dedicated professionals provide a range of services — free of charge — to students who are having difficulty in a course or those who are highly motivated and want to hone their skills to change a potential B to an A.

Although each campus’s center has some unique aspects, they all offer three basic services: workshops to develop study skills; tutoring for academic subjects; and testing, placement and instruction in basic skills.

Workshop offerings include those in the Core courses, reading, writing, academic study skills and, for those who require it, English as a second language. Development of reading skills is considered crucial to students’ success; participants are taught how to adjust reading skills to the material at hand — whether a biology text or a 19th-century novel — and maximize comprehension and retention of the material. Individualized tutoring sessions help students who come in when they need concentrated assistance in overcoming problems in a specific course. The centers also administer the Accuplacer Placement Tests to selected incoming students and place students in the appropriate classes.

Libraries

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

The Metropolitan Campus libraries include the Frank Giovatto Library in Teaneck and the Business Research Library (Dickinson Hall) in Hackensack. The Giovatto Library collection contains approximately 156,000 volumes. Approximately 350 periodical titles are currently received. The Giovatto Library also offers a collection (3,000) of both educational and popular DVDs and audiobooks on CD. Special collections include the Gehl collection of psychoanalytic materials, the Columbia film archives and selected presidential papers on microfilm.

The Sammartino Room, located on the ground floor of the Giovatto Library, is intended to house and to showcase the intellectual and historical heritage of the University. The collection includes monographs by the founder and first president Peter Sammartino and about the University, monographs published by FDU Press, FDU’s The Literary Review, doctoral dissertations, yearbooks, faculty publications and FDU memorabilia. The Special Collections suite includes the Faculty Display Case with recent faculty publications; the Alumni Publications Display; the Magister Room, which houses the campus’s master theses and honors theses. Desktop workstations are available in the Sammartino Room and the entire suite has wireless access. The J. Michael Adams Room, in the Special Collections Suite adjacent to the Sammartino Room, opened in October 2013. In addition to books and memorabilia, it houses the International Association of University Presidents (IAUP) archives.

The library offers a wide variety of workshops and programs open to students, and library news is available through the Giovatto Library Facebook page and blog. The library has two Boston by Steinway pianos and sponsors a library recital program for students and staff. The Giovatto Art Gallery offers exhibit space to faculty, staff and students.

One of the campus’s most prominent works of art is Epic of America, which hangs on the face of the Giovatto Library. The casting was created by famous artist William Zorach. He described the symbolism as “The Indians that possessed this land … left us a rich heritage — We are all sun worshippers, loving life and the great forces of creation, renewed each day and yet never the same.” The flags represent all the flags that “have flown over this country until we were all united under one flag.”

The woman represents America itself, beautiful and full of fertile promise. And the man and the child represent “the spirit of enterprise and education, leading the new generation to carry on the work of today into the new visions of tomorrow — the new age flowing into life.”

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

Developed at the Florham Campus location is a library collection of more than 130,000 book volumes, some 200 current newspapers and periodicals plus more than 1,900 backfiles. It also holds more than 1,600 DVDs and videos for classroom and individual use.

The noncirculating print collections in the Monninger Center include the Douglas Lloyd Kahn Collection on the History of Photography and Film with some 3,400 plus titles; and the smaller, noncirculating collections of the Kushen Family Collection in memory of Betty Kushen, Ph.D., including special editions of 19th- and 20th-century British women writers; Literature by Black Authors, in particular African-American writers in first editions; the Twombly estate collection; as well as the archives of Fairleigh Dickinson University founder Peter Sammartino; and the New York Cultural Center.

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

Students and faculty on both campuses have easy access to all FDU library materials plus those of the College of Saint Elizabeth (Morristown, N.J.) through the online catalog CoolCAT. Intercampus loan requests can be delivered to the appropri-
Academic Support and Research

The Fairleigh Dickinson University Technical Assistance Center (UTAC) provides around-the-clock technical support services for more than 200 commercial off-the-shelf software applications, Google for Education, Microsoft and Macintosh (OS 8.x and higher) operating systems, all common browsers, Webcampus/BlackBoard, virtually all network connectivity options and password-reset support. This 24-hour helpdesk support is available to all students at the University within a day or two. A user needing special library materials not owned by FDU can access library holdings throughout the country with interlibrary loans. These can be requested either online or in person at any campus library.

The FDU Online Library provides access to more than 143 subscription databases containing more than 40,000 full-text journals, more than 135,000 e-books and a streaming video collection. Most resources within the FDU Online Library are available 24/7, both on campus and remotely.

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

For further information call: Monninger Center (Florham Campus) at (973) 443-8516
Giovatto Library (Metropolitan Campus) at (201) 692-2278
Business Research Library (Hackensack) at (201) 692-2608

Computer Facilities

Almost all students at the University make use of one of the campus computer centers, whether their majors are in the sciences, engineering, business, education or liberal arts, graduate or undergraduate. The computers available feature a wide range of application software and programming languages for students in all disciplines.

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, business, 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, business, computer science, physics, biology, chemistry, visual and performing arts, psychology, nursing, video editing, engineering, athletics and others. There are general and business labs in the Frank Giovatto Library and the Academic Support Center.

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

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 (formerly Webmail) credentials for authentication.

To keep pace with changes in technology and increasing demands for memory and processing power, campus computing center computers are acquired on a three- to four-year technology refresh program. The most recent technology refresh for the general computer labs and many others was in the summer of 2016, and the graphics labs in the summer of 2014.

From the time a student is admitted, he or she may obtain, and use, a NetID (formerly Webmail) account to obtain email, network storage and printing capabilities.

University systems and security operates and maintains the University data centers, enterprise systems and networking infrastructure, which are used by all, regardless of campus or location. These systems support both the academic and administrative needs of the University. Services include a system for University-run web pages, faculty and staff personal web pages, a library automation system, an email system and other platforms for advancing the needs of the academic programs. These systems can be accessed using the internet.

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

UTAC

The Fairleigh Dickinson University Technical Assistance Center (UTAC) provides around-the-clock technical support services for more than 200 commercial off-the-shelf software applications, Google for Education, Microsoft and Macintosh (OS 8.x and higher) operating systems, all common browsers, Webcampus/BlackBoard, virtually all network connectivity options and password-reset support. This 24-hour 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) 445-8689.

**Academic Support and Research**

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 fed-
eral 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 fol-
lowing URL: [http://isweb.fdu.edu/
policies/orit_policy.html](http://isweb.fdu.edu/policies/orit_policy.html).

Research

The variety, scope and incidence of re-
search and related scholarly activity within
the University continue to increase. Usually
research carried out by the faculty com-
bines the inquiry for new knowledge with the
education of students at the graduate
and undergraduate levels. Great emphasis is
placed on research and related activities,
independent study and inquiry and action
projects and employment as means of de-
veloping abilities. Faculty research grants
support research-related activities and trav-
el. Government and industry, in addition to
the University, support and sponsor Uni-
versity research activities.

Research and educational development
activity is found in all academic disciplines.
Research is integral to graduate programs in
chemistry, corporate communication,
clinical mental health counseling and psy-
chology in the Maxwell Becton College of
Arts and Sciences.

The master's-level program in chemistry
provides research experience through a
thesis-based research program. Students
work alongside experienced faculty re-
searchers in areas as varied as pharmaceu-
tical chemistry, inorganic chemistry, molec-
ular dynamics, biochemistry and biomater-
ial science. Current research within the
department includes computational model-
ing of collagen mutations to determine
their role in biological systems, develop-
ment of surface bound anti-infective coat-
ings for use in the biomedical industry,
quantum mechanics and molecular orbital
type applied to metalloporphyrins, corre-
lation of protein structure and function and
separation and purification of biomaterials.

Students have an opportunity to perform a
full year of research working on original
work in these areas, including but not lim-
ited to experimental design, analytical tech-
niques, data analysis and conclusions.

At the end of their research experience,
students are required to write a formal
master's thesis and defend their work dur-
ing a research seminar to complete the
degree requirements.

Due to the nature of the master's pro-
gram with a concentration in pharmaceuti-
cal chemistry, a research component has
been integrated into the course work as
part of a laboratory experience in Becton
College. Foundation courses have been
created to expose students to a broad array
of topics and techniques to enrich the stu-
dents' knowledge through hands-on learn-
ing and to prepare students for the
challenges of industrial pharmaceutical
chemistry that they are likely to experience
in their postgraduate careers.

In Becton College's psychology and
clinical mental health counseling programs,
opportunities for research are provided
both within courses and on a one-to-one
basis with faculty. Student-faculty collab-
oration is frequent and often results in schol-
arly presentations at professional meet-
ings as well as publications in relevant academic
journals. Both qualitative and quantitative
methods are used for data collection and
analysis. Students have pursued research
interests in a wide variety of areas such as
work/life-balance issues, career-develop-
ment patterns, personal and organizational
factors affecting work performance, person-
ality traits and the effects of stress.

Students have also investigated mental
health processes (including psychological
disorders and resiliency factors) as well as
counseling techniques and treatment out-
comes.

Communication studies faculty have
published work in professional and schol-
arly journals and written books on com-
munication theory, organizational and
crisis communication, advertising, commu-
nication pedagogy, semiotics, network
analysis and language and social interac-
tion. Students in the corporate and organi-
zational communication master's program
have the option of a research thesis or a
comprehensive examination, which also
includes a significant research component.

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

University College: Arts • Sciences •

Professional Studies prides itself on its
emphasis on research. The Metropolitan
Campus houses the clinical psychology
and school psychology doctoral programs
where students and faculty do research in
such areas as behavioral medicine, cogni-
tive, psychological and psycho-educational
testing and women’s issues to name a few.
Faculty in the English and comparative liter-
ature department focus on modern and
19th-century English and American writers.

The Henry P. Becton School of Nursing
and Allied Health faculty and students are
engaged in various research projects and
activities in the honors, master's and Do-
cor of Nursing Practice (D.N.P.) programs.
D.N.P. students are engaged in evidence-
based research for their dissertation pro-
jects. Some students implement research
on patient outcomes, health policy and
management in collaboration with various
hospitals. D.N.P. students are required to
pass an oral defense of their research or
evidence-based projects.

The Peter Sammartino School of Edu-
cation, also part of University College, is
funded by local and state agencies and the
Office of Education for a variety of innova-
tive programs. Research is concentrated in
the areas of learning disabilities, ESL,
bilingual education and dyslexia.

The Lee Gildart and Oswald Haase
School of Computer Sciences and Engi-
neering focuses on research on electronic
commerce, electronic business, organiza-
tional memory, organizational memory
information systems, knowledge manage-
Academic Support and Research

ment, wireless communication systems, radio resource management, optimization for engineering applications, optical devices, multimedia streaming, cross layer design, mobile computing, communication networks, mobile ad hoc networking, network management, conflict control, deadlock, ADA programming, real-time systems and formal methods, digital and adaptive signal processing, array processing, image processing, pattern recognition, biometric authentication, database systems, data warehouse, security, software reuse, component-based software engineering, semantic deep web, service-oriented computing, VLSI design and near-ring theory.

Research interests of faculty in the School of Natural Sciences are wide ranging and include such diverse topics as: microbiology, protozoan ecology and behavior, marine toxicology and invertebrate biology, biochemistry, enzymes, expression of extracellular matrix genes, wound care, application of biocatalysis in the preparation of pharmaceuticals, chitosan nanoparticles, polymer chemistry and computational chemistry.

The Silberman College of Business places significant emphasis on faculty maintaining their academic and professional qualifications to deliver quality business education programs. Faculty maintain their academic qualifications through rigorous research and other intellectual contributions related to their respective fields, thereby enhancing the quality of classroom instruction.

The research interests of faculty in the Silberman College of Business span several disciplines, including business law, economics, entrepreneurship, finance, health care systems, human resources, management, management information systems, marketing, quantitative analysis, production and operations management, managerial accounting and taxation. The faculty have researched and published numerous articles in peer-reviewed journals, presented at various national and international conferences, developed case studies, produced working papers, authored books and also served on expert panels for international organizations such as the United Nations. Some of the topics in which the college faculty have particular expertise include mergers and acquisitions, options theory, entrepreneurship and innovation, forensic science, sustainability, pricing theory, public relations, social networking, international finance, quality of health care and delivery, international taxation, role of information systems in managerial decision making and e-commerce, among others. Students have the opportunity to participate in such projects after consulting with the appropriate faculty.

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

The Public Administration Institute’s (PAI) program of applied research focuses on problems and issues in public policy and administration. Current research projects include studies of health services marketing, local government financial management, long-term health care services, public-sector management information systems, AIDS in the workplace and productivity measurement in the delivery of human services. The School of Administrative Science is conducting research in the fields of diplomatic leadership, computer security and forensics through the use of Petrocelli College’s Cyber Crime Training Laboratory on the Metropolitan Campus, homeland security, emergency management, school safety, student services and sports administration.

Students With Disabilities

Fairleigh Dickinson University makes support services available to students with documented disabilities. Students with documented physical, learning or psychological disabilities may request reasonable modifications, accommodations, auxiliary aids or services which will provide them access to participate in programs and activities. Students with documented disabilities may request support services by contacting the campus ADA/504 coordinator. For the Florham Campus contact the director of disability support services at 973-443-8079. For the Metropolitan Campus contact the associate campus executive at (201) 692-2477.

Fairleigh Dickinson University Press

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

The Literary Review

The Literary Review (TLR) is an international quarterly journal of contemporary writing founded in 1957. As one of the country’s longest continually running university-affiliated quarterly, TLR is an ambassador for FDU in the international literary community, asserting and demonstrating FDU’s commitment to the arts. Four times a year it publishes a new issue of the highest-quality poetry and prose and is recognized for its style, its bold approach, its loyalty to its contributors — whether they are emerging or established writers, and its dedication to world literature. The journal has won recognition for its good work and reinforces the FDU profile through inclusion in best-of-anthologies and online features through aggregation, by being invited to speak on panels of conferences and festivals, by relationships with high-profile literary organizations, such as PEN American Center, the American Literary Translators Association and Council for Literary Magazines and Small Marketplaces (CLMP). Members train and mentor more than 25 undergraduate and graduate students a year through internships in literary publishing and collaborate extensively with the creative writing department and M.F.A. program of FDU.
Academic Regulations

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

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

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

1. Cheating — Giving or receiving unauthorized assistance in any academic exercise or examination. Using or attempting to use any unauthorized materials, information or study aids in an examination or academic exercise.

2. Plagiarism — Representing the ideas or language of others as one’s own. A more complete description is listed below in the section titled “Plagiarism Described.”

3. Falsification — Falsifying or inventing any information, data or citation in an academic exercise.

4. Multiple Submission — Submitting substantial portions of any academic exercise more than once for credit without the prior authorization and approval of the current instructor.

5. Complicity — Facilitating any of the above actions or performing work that another student then presents as his or her assignment(s).

6. Interference — Interfering with the ability of a student to perform his or her assignment(s).

Plagiarism Described*
As defined by the Council of Writing Program Administrators, plagiarism “occurs when a writer deliberately uses someone else’s language, ideas or original (not common-knowledge) material without acknowledging its source.” (“Defining and Avoiding Plagiarism: The WPA Statement on Best Practices” <http://www.wpcouncil.org/positions/WP/Aplagiarism.pdf>)

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

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

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

In addition to requiring students to authenticate their work, Fairleigh Dickinson University course instructors may employ various other means of ascertaining authenticity — such as using search engines to detect plagiarism, using external plagiarism-detection services, creating quizzes based on student work and requiring students to explain their work and/or process orally. The inability to authenticate work is sufficient grounds for a charge of plagiarism.

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

Sanctions
Any student violating the University’s Academic Integrity Policy will, for their first offense, receive one or a combination of the following penalties imposed by the course instructor:

1. No Credit (0) or Failure for the academic exercise.

2. Reduced grade for the course.

3. Failure in the course.

4. Recommendation for Academic Probation to the dean of the college in which the student is registered.

The course instructor shall file a notice using the University’s Academic Integrity Policy Violation Report, a copy of which will be placed in the student’s file maintained in the campus Office of Enrollment Services and in the Office of the Dean of Students.

In cases of interference and complicity, whether or not the student is registered in the affected course, the incident and penalties shall be recorded in the student’s file maintained in the campus Office of Enrollment Services and in the Office of the Dean of Students.
For a subsequent violation of academic integrity, a student will be subject to any combination of the above sanctions, and, after due review by the academic dean according to the procedure noted below, one of the following:

1. **Suspension** from the University for one year. Readmission will be contingent upon the approval of the academic dean.

2. **Dismissal** from the University. (Note: Dismissal from the University will be identified on the student’s academic transcript as a result of the violation of the Academic Integrity Policy.)

**Procedure**

When a course instructor believes that a student has violated the Academic Integrity Policy, the course instructor shall discuss the incident with the student as soon as possible. If, after the conference, the course instructor determines that an act of academic dishonesty has occurred, the course instructor may impose the appropriate sanctions. Within five days of the course instructor’s action, the course instructor shall complete the Academic Integrity Policy Violation Report, copying his or her school director or department chair and the college dean. Within five days of completion of the course instructor’s report, the academic school or department shall notify the student via certified mail/return receipt of the sanctions and the appeals’ process. Copies of the notice shall be sent to the director of the school or chair of the department of the student’s major, to the dean of the college in which the course is offered, campus director of enrollment services and dean of students. If it is determined that a violation of academic integrity did not occur, the student’s final grade in the course cannot be based on the assumption of such violation. If the differences between the course instructor and the student are not resolved by this review, the student may appeal the outcome to the dean of the college in which the course is offered.

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

For a sanction of suspension or dismissal imposed by the academic dean, the student may file a written appeal to the University provost/senior vice president for academic affairs within 10 working days of receiving the notification of the dean’s decision. The University provost or his or her designee, shall review the case within 10 working days of the receipt of the appeal. The University provost shall make the final decision, using any appropriate resources to assist in deciding the appeal. The University provost shall then notify all parties in writing of his or her final decision within five working days of the decision.

_Revised January 28, 2015_

**Credit Hour Definition**

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

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

**Academic Load**

A student registered for 9 credits per semester is considered a full-time graduate student. Half-time status is applied to students who register for a minimum of 4.5
credits. A student may register for a maximum of 15 credits (18 credits in some cases) with written approval of the college dean and the department chairperson, school director or institute director of his/her major.

No credit will be allowed for courses taken at another accredited institution of higher learning while enrolled in a degree program at Fairleigh Dickinson University unless approved in advance and in writing by the college dean, school or institute director and the student’s major department chairperson or school/institute director.

Degree Requirements
1. Students must complete all required credits for the program at Fairleigh Dickinson University other than those for which transfer credits have been awarded.

2. A cumulative grade point ratio (CGPR) of at least 2.75* is required for graduation from all colleges except the Silberman College of Business, the Public Administration Institute and corporate and organizational communication program (Maxwell Becton College of Arts and Sciences) and the Henry P. Becton School of Nursing and Allied Health’s Doctor of Nursing Practice (DNP) program, which require 3.00; a grade point ratio of at least 3.25 is required for the Ph.D. program in clinical psychology and Psy.D. program in school psychology. Students who receive two or more C grades will be warned, and if evidence of definite improvement in their academic performance does not ensue, they will be asked to withdraw from graduate study.

3. All graduate programs have an exit requirement for graduation. Students should ascertain the specific requirements from their departments.

4. Students must check with their department to ascertain whether a thesis is required for the degree. When the master’s thesis is completed — whether required or optional — a candidate must file three copies of the approved thesis with the Office of Enrollment Services, no later than the last day of final examinations for any given semester. If the student’s adviser does not require a copy of the approved master’s thesis, a candidate need only file two copies of the approved thesis with the Office of Enrollment Services. Students must register for two semesters of Research and Thesis consecutively. Students must use the approved form for typing the master’s thesis. Information may be obtained from the student’s adviser.

5. Students should check with their major department to ascertain whether a comprehensive examination is required for their degree. If a comprehensive examination is required, students should inquire from their department as to the date for filing for the examination and the date on which it will be given.

6. A graduate program of study must be completed within a period of five years from the time the student first registers for graduate study. Exceptions to the five-year limitation or to the Silberman College of Business’ and School of Pharmacy and Health Sciences’ seven-year limitation must be requested in writing to the dean or the institute director and the student’s major department chairperson or school director or institute director.

7. A candidate who is deficient in the basic undergraduate prerequisites will be required to meet the deficiency or deficiencies according to department or school guidelines.

Maintenance of Matriculation Status
In order to maintain matriculation status, students must register consecutively for the full and spring semesters. If consecutive registration is not maintained, students must reapply to the Admissions Office. It is recommended that graduate students who find it necessary to absent themselves from a major semester at the institution register for matriculation maintenance, thereby retaining active status. This process also provides the opportunity for the students to avail themselves of the use of various University facilities, i.e., recreational facilities and the libraries. See the “Tuition and Fees” section (page 20) for matriculation maintenance fee.

Academic Leave of Absence
A leave of absence allows students to interrupt their graduate studies if necessary. A leave of absence is granted for one semester with the privilege of renewal for one more consecutive semester. Request for a leave of absence must be approved in writing by the student’s department chairperson or school director and the college dean. (Information on procedures for requesting a leave of absence is available from the Dean of Students Office on each campus.) Students wishing to renew their leave of absence also must do so in writing.

Students who have been granted a leave of absence will be maintained as students in good standing during the semester in which a leave of absence is taken, but will be discontinued from graduate study unless students register the semester following a leave of absence, or request and are granted an extension of the leave of absence.

Withdrawal
Students must notify the Office of Enrollment Services in writing of their intention to withdraw from graduate study. Students who wish to return at a later date must reapply through the Admissions Office.

Candidacy for a Graduate Degree
The application for graduation is located in WebAdvisor under Student Profile. Students should click on the link: Apply for Graduation. This must be done no later than eight months preceding graduation. Filing dates must be obtained from the Office of Enrollment Services. Degrees are awarded September 1, February 1 and the day of commencement in May.

Grades
A system of grade points is used to determine students’ general averages. Weighted letters for each credit hour are assigned grade points. (See below.)

The value of weighted letter grades is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

*Check degree requirements for individual majors.
If students wish to withdraw from a course, they must notify the Office of Enrollment Services on the form provided. Mere nonattendance or nonpayment of tuition does not constitute an official withdrawal.

**Regulations Governing Letter Grades**

**P–Pass** — to be counted toward degree requirements but not averaged into students’ cumulative grade point ratio (CGPR). P–Pass is not permitted in the Silberman College of Business.

**NC–No Credit** — not to be credited toward the degree requirements nor averaged into the CGPR. NC–No Credit is not permitted in the Silberman College of Business.

**W–Withdrawal** — not to be credited toward the graduate requirements nor averaged into the CGPR. Graduate students may withdraw from a course through the ninth week of a semester (through the fourth week of a summer session). After the ninth week (fourth week in summer sessions), withdrawal may be permitted for serious, documented, medical reasons or other unusual extenuating circumstances. Students requesting late withdrawal should present evidence of unusual circumstances and/or medical documentation to the Office of Enrollment Services.

**I–Incomplete** — this designation is not a substitute for a letter grade. It merely describes a student’s temporary status in a course. It is to be given only in exceptional or emergency circumstances at the discretion of, and after consultation with, the instructor. Students have a responsibility to notify the instructor of circumstances preventing them from completing the requirements on time. Students will have up to the third week of the next full semester (excluding summer sessions) to complete the requirements. If the requirements have not been met within the prescribed period, the I will automatically become an F. The F is a letter grade and will count in the student’s CGPR.

Special regulations may apply for Research and Thesis and Advanced Special Projects.

Requests for extensions must be made to the instructor, approved by the chair or director and forwarded to the college dean and the Office of Enrollment Services.

**Grade Appeal Procedure**

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

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

2. The student shall request in writing a meeting with the respective department chairperson or school director concerning the grade in question.

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

4. If the issue is not resolved to the student’s satisfaction, the student has one week to appeal in writing to the dean of the college in which the course is taught.

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

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

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

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

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

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

**Repeated Courses**

If a student repeats a course, both the first and the second grade will remain on the transcript and will be computed into the cumulative grade point ratio.

**Transcripts of Records**

Transcripts of records are made available via an online ordering service at www.getmytranscript.org. The cost of a transcript is $4.00. Transcripts may be withheld if a student owes money to the University or has past-due federal loans at the time of the request.

**Major Religious Holy Days**

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

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

**Concentrations and Certificate Programs**
Concentrations and certificate programs are available within many graduate degree programs. For information, turn to the Table of Contents (pages 2–3) or the Index (pages 266–285).

### Administration Science (M.A.S.)
- FLOR
- METR
- O-C

### Biology (M.S.)
- FLOR
- METR

### Business
- Master of Business Administration (M.B.A.)
  - Accounting
  - Business Administration
  - Finance
  - International Business
  - Management
  - Marketing
  - Pharmaceutical Management Studies
  - Saturday M.B.A.
- M.B.A. for Executives
  - General Management
  - Health Sector Management
- Master of Science (M.S.) — Accounting
- Master of Science (M.S.) — Digital Marketing
- Master of Science (M.S.) — Supply Chain Management
- Master of Science (M.S.) — Taxation

### Chemistry (M.S.)
- FLOR
- METR

### Clinical Mental Health Counseling (M.A.)
- FLOR
- METR
- O-C

### Communication (M.A.)
- FLOR
- METR

### Computer Engineering (M.S.)
- FLOR
- METR

### Computer Science (M.S.)
- FLOR
- METR

### Cosmetology Science (M.S.)
- FLOR
- METR

### Creative Writing (M.A.)
- FLOR
- METR
- O-C

### Creative Writing and Literature for Educators (M.A.)
- FLOR
- METR
- O-C

### Criminal Justice (M.A.)
- FLOR
- METR
- O-C

### Cybersecurity and Information Assurance
- FLOR
- METR

### Education
- Education for Certified Teachers (M.A.)
- Educational Leadership (M.A.)
- Learning Disabilities (M.A.)
- Mathematical Foundations (M.A.)
- Teaching (M.A.T.)
- Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.)

### Electrical Engineering (M.S.E.E.)
- FLOR
- METR

### Electronic Commerce (M.S.)
- FLOR
- METR

### Health Science (M.H.S.)
- FLOR
- METR

### Homeland Security (M.S.)
- FLOR
- METR
- O-C

### Hospitality Management Studies (M.S.)
- FLOR
- METR

### Management Information Systems (M.S.)
- FLOR
- METR

### Medical Technology (M.S.)
- FLOR
- METR

### Nursing (M.S.N.)
- FLOR
- METR
- O-C

### Nursing Practice (D.N.P)
- FLOR
- METR

### Pharmacy (Pharmac.D.)
- FLOR
- METR

### Psychology
- Clinical Psychology (Ph.D.)
- Clinical Psychopharmacology (Postdoctoral M.S.)
- Forensic Psychology (M.A.)
- General/Theoretical Psychology (M.A.)
- Industrial/Organizational Psychology (M.A.)
- Postbaccalaureate Respecialization Program in Psychology
- School Psychology (Psy.D.)
- School Psychology (M.A.)

### Public Administration (M.P.A.)
- FLOR
- METR

### Service Innovation and Leadership (M.S.)
- FLOR
- METR

### Sports Administration (M.S.A.)
- FLOR
- METR
- O-C

### Student Services Administration (M.A.)
- FLOR
- METR
- O-C

**FLOR** = Florham Campus (Madison, New Jersey)
**METR** = Metropolitan Campus (Teaneck, New Jersey)
**O-C** = Off Campus (See chart on inside front cover for locations of off-campus programs.)
Administrative Science (M.A.S.)

The Master of Administrative Science (M.A.S.) degree program is structured to meet the career-development needs of adult learners working in administrative and professional positions in government agencies, not-for-profit organizations and corporate settings. Its primary purpose is to enhance the administrative skills of its graduates.

The program is designed to primarily serve in-service students with five or more years of relevant professional work experience. The degree program is targeted toward working adults, and admission is based on multiple criteria, including the applicants’ career and other accomplishments, personal maturity and evidence of commitment to graduate study and professional development. Special consideration will be given to applicants having a significant record of relevant professional and/or administrative experience in government and not-for-profit organizations.

The program combines both cognitive and affective (interactive) instruction through case studies, simulations, individual and group exercises and fieldwork that helps to develop the critical managerial effectiveness. The M.A.S. educational experience seeks to develop administrative competencies in a supportive learning environment in conjunction with specific and clear feedback.

This program is offered under the auspices of the School of Administrative Science, Anthony J. Petrocelli College of Continuing Studies, at the Florham Campus, Madison, New Jersey; the Metropolitan Campus, Teaneck, New Jersey; various locations throughout New Jersey; at the Vancouver Campus, British Columbia, Canada; and online.

Program Highlights

- A 30-credit program that can be completed in 20 months while working full-time.
- An opportunity to begin the program at any one of three entry points during the year: September, January and April.
- Small classes offered one evening per week (6:15–9:30 p.m.) in a 12-week trimester format or five consecutive Saturdays (8:30 a.m.–4:30 p.m.) to accommodate the needs of working professionals.

- More than 25 convenient off-campus locations throughout New Jersey.
- Many courses are available online through an asynchronous delivery.
- Partial tuition scholarships for employees of government and nonprofit organizations. Tuition, which includes a 50 percent scholarship for all public and nonprofit organization personnel, is $1,797.00* per course, and entitles participants to use FDU’s facilities (library, recreation center, etc.).

Graduate Certificate Programs

Administrative Science

Students who wish to qualify for a Certificate in Administrative Science may do so by completing six courses (18 credits) from the M.A.S. degree course offerings listed on pages 42 to 53. These credits may then be applied to the M.A.S. degree. Any six courses (18 credits), on a matriculating or nonmatriculating basis, qualify for a Certificate in Administrative Science.

Career Development

This 18-credit, six-course certificate is designed for individuals working in workforce-investment systems. It is designed to provide participants with common knowledge throughout the system. Courses include MADS6628 Building Strategic Partnerships, MADS6629 Planning and Program Development, MADS6662 Customer Service for Public and Not-for-Profit Organizations, MADS6775 Career-development Process, MADS6776 Research Methods for Workforce Professionals and MADS6781 Social Media Marketing.

Computer Security and Forensic Administration

This 18-credit graduate certificate program focuses on the criminal justice system’s response to the expanding area of computer crime. Designed for law enforcement officials, corporate security executives and state agency investigators, the certificate provides training to appropriate personnel in the investigation, case development and protocols relating to computer crimes.

*This fee is a 2017–2018 fee. New tuition and fee charges for 2018-2019 will be announced in the spring of 2018. Please check with the Office of Enrollment Services for current charges.
Each course is taught in a computer laboratory to ensure direct relevance and practical application of all information being covered. Students are required to take six courses: MADS6637 Computer Systems Seizure and Examination, MADS6638 Computer Security Administration, MADS6639 The Forensic Expert, MADS6654 Forensics Administration, MADS6697 Current Issues in Cyber Forensics, MADS6701 Introduction to Computer Network Security, MADS6702 Investigation of Computer System/Network Emergencies, MADS6730 Malware Investigations, MADS6735 Introduction to Countermeasures for Malware and MADS6777 Current Issues in Forensic Sciences.

**Correctional Administration and Leadership**

This 18-credit graduate certificate program focuses on the administration and leadership of correctional institutions. Courses include MADS6600 Theory and Practice of Administration, MADS6602 Personnel Administration, MADS6606 Administrative Leadership in Complex Organizations, MADS6610 Organizational Decision Making, MADS6618 Leadership Plus, MADS6647 Organizational Planning and Risk Communications, MADS6656 Social Problems and Solutions, MADS6661 Managing Organizational Change and MADS6693 Leading Culturally Diverse Workplaces.

**Diplomacy and International Relations**

This 18-credit, six-course certificate is designed for those who are engaged in the field of diplomacy or international relations. The program will study critical topics of a global nature including globalization, international conflicts and relations, leadership and global marketing. Students may select six courses from the following: MADS6608 Organizational Communication and Conflict Resolution, MADS6611 Special Topics: Introduction to Diplomacy and International Relations, MADS6615 Global Leadership, MADS6640 Leading in Times of Crisis, MADS6672 Ethics and Human Rights, MADS6693 Leading Culturally Diverse Workplaces, MADS6732 International Conflict Resolution, MADS6733 World Economy and Globalization and MADS6740 Comparative Political Systems.

**Displaced Persons Administration**

There is a myriad of issues that displaced individuals are faced with, and organizations must be able to identify such issues in order to provide assistance. This 18-credit graduate certificate will investigate various issues as well as remedies for problems. Courses include MADS6617 Emergency Management and Safety Administration, MADS6628 Building Strategic Partnerships, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6656 Social Problems and Solutions, MADS6672 Ethics and Human Rights, MADS6674 Sociological Perspectives of Disaster and MADS6717 Special Topics: Leading Out of the Mainstream.

**Emergency Management Administration**

This 18-credit graduate certificate is designed for community leaders involved in planning, policy making, implementation and administration of emergency management. Participants can select any six of the following courses: MADS6617 Emergency Management and Safety Administration, MADS6633 GIS and Emergency Administration, MADS6634 Community Threat Assessment and Risk Analysis, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6647 Organizational Planning and Risk Communications, MADS6648 Disaster Recovery and Organizational Continuity, MADS6698 Current Issues on Terrorism and Security and MADS6715 Special Topics: Global Terrorism and Emergency Management Preparation.

**European Studies and Administration**

This 18-credit, six-course certificate explores European political, cultural, social, technological and economic conditions. Students may select six courses from the following: MADS6614 Comparative Public and Legal Systems, MADS6626 Law-enforcement Executive Leadership Seminar, MADS6640 Leading in Times of Crisis, MADS6666 The New European Map, MADS6694 New Challenges of Leadership in a Global Society, MADS6700 Global Technology Project Management and MADS6751 Cultural and Social Awareness Seminar. Students may take as an elective any of the MADS courses taught in Europe.

**First-responder Administration**

This 18-credit, six-course certificate is designed to provide theoretical and practical application of concepts used by first responders. Students may select six courses from the following: MADS6600 Theory and Practice of Administration, MADS6601 Financial Administration, MADS6602 Personnel Administration, MADS6628 Building Strategic Partnerships, MADS6714 Special Topics: First-responder Stress Awareness and Management, MADS6747 Relational Leadership and MADS6777 Leading Volunteers in Organizations.

**Global Emergency Medical Services Administration**

This 18-credit graduate certificate is designed to enhance the knowledge and leadership skills of administrators and staff of organizations responsible (or potentially responsible) for provision of emergency medical services. All of New Jersey’s mobile health care resources should be prepared to respond to crisis events, as well as to the everyday needs of their communities. Students are required to take six of the following courses: MADS6602 Personnel Administration, MADS6608 Organizational Communication and Conflict Resolution, MADS6617 Emergency Management and Safety Administration, MADS6620 Human Resource Systems: Approaches and Techniques for the Modern Workplace, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6646 Finance and Accounting for Health and Human Services and MADS6698 Current Issues on Terrorism and Security.

**Global Health and Human Services Administration**

An 18-credit graduate certificate designed for professionals interested in health, hospital and human services administration. Students are required to take the following two courses: MADS6642 Global Health and Human Services Systems and MADS6643 Community Needs Assessment and Qualitative Analysis for Health and Human Services. Students may select four electives from the following: MADS6628 Building Strategic Partnerships, MADS6644 Law, Ethics and Policy for Health and Human Services, MADS6645 Marketing Social Change, MADS6646 Finance and Accounting for Health and Human Services, MADS6647 Organizational Planning and Risk Commu-
Global Technology Administration
This 18-credit graduate certificate provides a comprehensive examination of project-management processes, integrating technical tools with leadership and team communication skills. This program is designed for managers and information technology professionals to improve innovation, strategy, operations and effectiveness in today’s agile global business architectures. Students learn technical aspects of project-management planning and execution methods as well as people skills that are critical to successful projects. Students are required to take the following two courses: MADS6605 Principles of Information Systems and MADS6700 Global Technology Project Management. Students may select four electives from the following: MADS6610 Organizational Decision Making, MADS6618 Leadership Plus, MADS6627 Women’s Leadership in Today’s Global World, MADS6634 Community Threat Assessment and Risk Analysis, MADS6653 Global Citizenship Seminar, MADS6658 Leadership: Global Advanced Scholarship and Practice, MADS6661 Managing Organizational Change, MADS6675 Optimum Leadership, MADS6706 Collaborative Leadership, MADS6709 Special Topics: Creativity, Change and the 21st Century Leaders, MADS6741 Executive Communication as a Leadership Tool and MADS6747 Relational Leadership.

Global Security and Terrorism Studies
This 18-credit graduate certificate program is designed for military, police, fire and emergency management professionals who comprise the first-responder community. The certificate provides a broad understanding of terrorist groups and the methods they employ along with in-depth training on how to prevent and respond to terrorist acts. Courses include MADS6617 Emergency Management and Safety Administration, MADS6634 Community Threat Assessment and Risk Analysis, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6648 Disaster Recovery and Organizational Continuity, MADS6698 Current Issues on Terrorism and Security, MADS6701 Introduction to Computer Network Security, MADS6705 Homeland Security and Constitutional Issues and MADS6715 Special Topics: Global Terrorism and Emergency Management Preparation.

Human Resource Administration
This 18-credit graduate certificate program is geared to the human resource practitioner. Select any six courses from the following offerings to earn the certificate: MADS6602 Personnel Administration, MADS6603 Law and Administrative Practice, MADS6607 Collective Bargaining and Contract Administration, MADS6608 Organizational Communication and Conflict Resolution, MADS6609 Productivity and Human Performance, MADS6620 Human Resources Systems: Modern Approaches and Techniques for the Modern Workplace, MADS6661 Managing Organizational Change, MADS6662 Customer Service for Public and Not-for-Profit Organizations and MADS6695 Advanced Employment Law.

Information Literacies and Learning Environments
This 18-credit, six-course certificate is in the emerging field of information literacies and learning environments. It is designed to help individuals address the new complexities facing the professionals in the field of information literacy and educational technology. Students are required to select at least three courses from the following: MADS6741 Information Literacies and Research, MADS6742 Learning Theories and Practice, MADS6743 Connectivism: New Learning Environments and MADS6744 Academic Support. Students can choose the remaining courses from the following electives: MADS6632 Technology Applications for Not-For-Profit Management, MADS6745 New Media Literacies, MADS6746 Specialized Research and Argument and MADS6781 Social Media Marketing.

Intelligence-led Policing
Intelligence-led policing involves the modern techniques that integrate the best practices of community policing with law-enforcement intelligence. This 18-credit graduate certificate builds on the use of data and information to solve issues involving crime, homeland security and quality of life. Students are required to take the following two courses: MADS6679 Intelligence-led Policing: Concepts, Practices and Issues and MADS6680 Strategic Planning
for Intelligence-led Policing. To complete the certificate, select four electives from the following: MADS6628 Building Strategic Partnerships, MADS6681 Intelligence Team Management, MADS6682 Intelligence Analysis, MADS6685 Tactical and Operational Management, MADS6684 Principles of Information and Intelligence Collection and MADS6685 Fusion Center Operations and Integration.

**Latin American Studies**

This 18-credit, six-course certificate explores historical and current aspects of Latin America’s culture, social, economic and political influences on the Western Hemisphere. Students may select six courses from the following: MADS6614 Comparative Public and Legal Systems, MADS6752 Current Issues in Latin America, MADS6788 Political and Economic History of Latin America, MADS6789 Modern Latin America, MADS6790 Economic Development in Latin America, MADS6791 Economic Integration and Free Trade Agreements in Latin America, MADS6793 Brazil, Mexico, Colombia and Argentina: A Comparative Perspective and MADS6794 Cuba: Past, Present and Future.

**Law and Public Safety Administration**


**Leadership Theory and Practice**

This 18-credit, six-course certificate is designed for individuals who would like to increase their leadership skills. There are differences between managers and leaders, and this course of study looks at the attributes of leaders, different theories that can be used and how leaders can vary their styles based on the situation at hand. Students are required to take at least two of the following courses: MADS6600 Theory and Practice of Administration, MADS6618 Leadership Plus and MADS6747 Relational Leadership. Students can choose the remaining courses from the following electives: MADS6640 Leading in Times of Crisis, MADS6675 Optimum Leadership, MADS6676 Perspectives on Leadership from Films, MADS6717 Special Topics: Leading Out of the Mainstream and MADS6731 Executive Communication as a Leadership Tool.

**Legal Environment Administration**

This 18-credit graduate certificate is designed for legal support staff. Courses include MADS6603 Law and Administrative Practice, MADS6607 Collective Bargaining and Contract Administration, MADS6620 Human Resource Systems: Approaches and Techniques for the Modern Workplace, MADS6635 Legal Research Methods and Analysis, MADS6641 Contemporary Legal Issues, MADS6695 Advanced Employment Law and MADS6708 Special Topics: Administrative Research.

**Nonprofit Organizational Development**

This 18-credit graduate certificate program is designed for professional leaders in the not-for-profit community. Students pursuing this credential may apply the credits toward the M.A.S. degree. Three core courses are required from the following four offerings: MADS6628 Building Strategic Partnerships, MADS6629 Planning and Program Development, MADS6631 Advanced Funding Practices and MADS6632 Technology Applications for Not-for-Profit Management. Students may choose three other courses from among those offered in the M.A.S. program. Recommended additional courses are: MADS6606 Administrative Leadership in Complex Organizations, MADS6608 Organizational Communication and Conflict Resolution, MADS6613 Marketing of Public, Private and Not-for-Profit Organizations, MADS6616 Grant Writing and Administration, MADS6618 Leadership Plus, MADS6645 Marketing Social Change, MADS6661 Managing Organizational Change, MADS6662 Customer Service for Public and Not-for-Profit Organizations, MADS6675 Optimum Leadership, MADS6747 Relational Leadership, MADS6763 Grants and Sponsored Projects Operations and MADS6781 Social Media Marketing.

**Public Relations Administration**

This 18-credit, six-course certificate focuses on the concepts relative to public relations including media strategies and how organizations market their programs and policies. Students may select six courses from the following: MADS6613 Marketing of Public, Private and Not-for-Profit Organizations, MADS6703 Public Presentations and Media Strategies, MADS6704 Managing Media Relations: From Local to Global, MADS6731 Executive Communication as a Leadership Tool, MADS6779 Mass Communication Theories, MADS6780 Society and Mass Communication and MADS6781 Social Media Marketing.

**School Security and Safety Administration**

This 18-credit graduate certificate program is designed for K–12 administrators and teachers to support the “Safe Schools” initiative. Courses include MADS6617 Emergency Management and Safety Administration, MADS6654 Community Threat Assessment and Risk Analysis, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6655 Contemporary Issues in Community Policing, MADS6691 Preventing Future Columbines, MADS6698 Current Issues on Terrorism and Security, MADS6707 The Impact of Terrorism on School Safety and MADS6714 Special Topics: First-responder Stress Awareness and Management.

**Wroxton Experience — Global Perspective**

Two courses, MADS6615 Global Leadership and MADS6627 Women's Leadership in Today’s Global World, are offered in the summer at FDU’s Wroxton College in England.
**Administrative Science**

### Online Graduate Degree and Certificate Programs

**Online Availability**
As a result of funding provided by the U.S. Department of Defense through the National Guard Bureau, three administrative science graduate certificates — the Global Security and Terrorism Studies Certificate, the Emergency Management Administration Certificate and the Computer Security and Forensic Administration Certificate — as well as five additional Master of Administrative Science (M.A.S.) courses have been created online. Public safety leaders and managers from around the world have the opportunity to earn an online M.A.S. degree that has been reviewed and approved by the National Guard. In addition to these National Guard-approved programs, the school also offers online graduate certificates in Law and Public Safety Administration, Global Leadership and Administration and Global Technology Administration.

**Admission Requirements**
The credentials required for admission to the Master of Administrative Science degree program as a matriculated student include the following:

1. A graduate application for admission and nonrefundable application fee.
2. A bachelor’s degree from an accredited college or university with a minimum cumulative grade point ratio (GPR) of 2.70. Applicants with a GPR 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 or nondegree students, with the approval of a graduate faculty adviser.

Candidates for the graduate certificate program in administrative science may be accepted as matriculated students, based on proof of a bachelor’s degree from an accredited college or university.

**Post-graduate Certificate in Public and Nonprofit Leadership**
This 24-credit post-graduate certificate program is designed to further enhance the competencies of public and not-for-profit organization administrators. Upon successful completion of either the 30-credit M.A.S. program or the 59-credit Master of Public Administration (M.P.A.) program, graduates can enroll in eight additional courses of their choice and earn a Certificate in Public and Nonprofit Leadership. Courses taken for the master’s degree cannot be repeated; however, there are ample new courses to choose from under Special Topics plus other listed courses including the Wroxton College, Oxfordshire, England, summer seminars. Students who have graduated from universities other than Fairleigh Dickinson can also take advantage of the post-graduate certificate program.

### Requirements for the Master of Administrative Science Degree
The following are the specific program requirements for the M.A.S. degree. The curriculum areas and credit-distribution requirements are designed to provide students with flexibility in planning a program of study within a competency-focused framework for professional development. Students must successfully complete 30 credits of graduate course work in the following three categories.

#### Administrative Competencies (18 credits)
This core area includes the following areas of administrative science: budgeting and financial administration, human resources administration, information systems administration, regulatory and legal issues in administration, organizational behavior and organizational communications.

#### Analytic and Decision-making Competencies (9 credits)
This core area includes course work in public policy analysis, economic analysis, quantitative reasoning, ethical and values issues and decision-making techniques that enable the student to analyze complex problems and develop appropriate strategies to address them.

#### Capstone Seminar (3 credits)
This core area provides an integrative learning experience that focuses on organizational leadership and strategic planning. Ordinarily the last course that a student takes in the program, the capstone seminar is offered on the Metropolitan Campus and Florham Campus.

### For Information
For information about the M.A.S. and certificate programs, contact: the assistant dean, School of Administrative Science, Fairleigh Dickinson University, Anthony J. Petrocelli College of Continuing Studies, School of Administrative Science, 1000 River Road, H-DH2-13, Teaneck, New Jersey 07666; Telephone: (201) 692-6522; Fax: (201) 692-7179.

### Course Offerings

#### Administrative Science
**School of Administrative Science**

**MADS5000**
1 Credit

**Curricular Practical Training**
This one-credit independent study is designed primarily for graduate international students but may apply to any student wishing to engage in a paid internship. Students are expected to comply with the internship guidelines and meet any other requirements that may apply. This class allows students to experience the work environment while completing their studies in the appropriate Anthony J. Petrocelli College of Continuing Studies program.

**MADS5001**
1 Credit

**Curricular Practical Training**
Students expand their knowledge of their area of specialization and apply concepts of different organizational structures and working relationships within a workplace environment. (For Vancouver Campus.)

**MADS6600**
3 Credits

**Theory and Practice of Administration**

**MADS6601**
3 Credits

**Financial Administration**
Analysis of the concepts and principles used in the financial administration of the public, private and not-for-profit sectors. This includes the key elements of accounting, budgeting, planning and control, auditing and their integration into a comprehensive administrative control system, including issues of systems design and implementation.
MADS6602
3 Credits
Personnel Administration
This course provides an overview of personnel administration, focusing on a unified human resources management program, including the integration of human resources planning, job analysis, employee selection, training performance evaluation and compensation administration. This course is waived for graduates of the New Jersey Certified Public Manager® (CPM) Program.

MADS6603
3 Credits
Law and Administrative Practice
Exploration and analysis of the function of law in a democratic society. Emphasis is placed on understanding the law as a legal and moral force guiding and constraining public decision making and action.

MADS6604
3 Credits
Ethics and Public Values
This course focuses on the ethical dimensions of the personal and professional judgments of public sector managers. Cases are used to examine the ethos of public service organizations and the moral foundation of public policy.

MADS6605
3 Credits
Principles of Information Systems
This course provides an overview of the role of information systems in the administration of public, private and not-for-profit organizations by presenting an integrated view of administration, information and systems concepts into a unified framework. Topics include information systems development, design implementation and evaluation strategies.

MADS6606
3 Credits
Administrative Leadership in Complex Organizations
Analysis of leadership behavior and administrative activities. Examination of major theories of leadership and motivation, including trait, behavioral, situational and power-influence leadership theories and acognitive and cognitive motivational principles for various levels of the formal organization.

MADS6607
3 Credits
Collective Bargaining and Contract Administration
Analysis of federal and state employee relations laws and regulation. Topics include the bargaining environment, contract negotiations, wage and benefit issues in arbitration, grievance arbitration and employee relations in nonunion organizations.

MADS6608
3 Credits
Organizational Communication and Conflict Resolution
Theories and models of communications and communications media; barriers to effective communication and techniques for improving interpersonal, group and organizational communications. Sources of conflict at the individual, group and organizational levels; methods of conflict management and resolution.

MADS6609
3 Credits
Productivity and Human Performance
Definitions and measurement of individual, team and organizational productivity, effectiveness and efficiency. Models for the analysis of organizational and individual productivity and productivity growth. Techniques for improving productivity.

MADS6610
3 Credits
Organizational Decision Making
Examination of processes in organizational decision making, the state of theory, research and applications for the practicing manager. Topics include administrative style and decision making; problem discovery and diagnosis; the search for solutions, evaluation and choice; group decision making; decision aids and support systems; and risk analysis.

MADS6611
3 Credits
Special Topics: Introduction to Diplomacy and International Relations
Introductory course on the role and importance of diplomatic protocol in international relations for government and public officials. Topics include definition of diplomacy, types of international relations, international organizations and NGOs, comparative foreign policy, international human rights.

MADS6612
3 Credits
Seminar in Strategic Management – Capstone*
Approaches to formulating strategies that enable public, private and not-for-profit organizations to adapt to changing social, technological, economic and political conditions. Strategic management from the administrator’s perspective. Development of long-range organizational strategies. Topics include forecasting, goal setting, environmental scanning, implementation of organizational strategies and strategic management and public policy. Note: Taken as the last or next to last course after completion of at least 24 credits.

*M students should declare for graduation when registering for this course via the University’s WebAdvisor system.

MADS6613
3 Credits
Marketing of Public, Private and Not-for-Profit Organizations
Course examines marketing concepts relevant to public, private and not-for-profit organizations that will enable administrators to match the goals, strengths and resources of an organization with the needs, wants and opportunities in the public sector.

MADS6614
3 Credits
Comparative Public and Legal Systems
A global examination of alternative government and legal systems, public policy formulation and implementation and conflict resolution. Organization and operational characteristics of public providers, private organizations and not-for-profit providers in global settings are analyzed with particular reference to different approaches to leading political and social issues as advanced by the United States, United Kingdom and European Union. This course begins with a mandatory orientation at FDU’s Metropolitan Campus. The class will discuss course format, research-paper requirements, books and other practical concerns of the trip.

MADS6615
3 Credits
Global Leadership
Leadership theories of European and American theoreticians as well as the methods and practices of world organization leaders in government, private and not-for-profit organizations are studied, compared and discussed. Presenters are drawn from local governments and entrepreneurs who have created, innovated and implemented sweeping policy changes in the operation of government. Several site visits are included. This course begins with a mandatory orientation at FDU’s Metropolitan Campus. The class will discuss course format, research-paper requirements, books and other practical concerns of the trip. Students must make their own travel arrangements. The cost of this program (tuition, room and board) is to be determined.

MADS6616
3 Credits
Grant Writing and Administration
The course provides students with an understanding of the process of writing successful grant proposals, including responding to the Request for Proposal, letter proposals, defining needs, methodology, timelines and the budget. Learn the elements of preparing a winning proposal that can secure funding for major public sector initiatives. Students prepare and submit full grant proposals relevant to their organizations.
Administrative Science

MADS6617
3 Credits
Emergency Management and Safety Administration

The course will provide for an in-depth analysis of planning and administration for emergency management in the public and not-for-profit sectors, the need for emergency planning, recovering losses from Federal Emergency Management Agency (FEMA) and state agencies due to catastrophic events, identification and allocation of resources, incident command procedure, safety in the working environment and federal Occupational Safety and Health Administration (OSHA) and state Public Employee Occupational Safety and Health Act (PEOSHA) regulations. Students evaluate their environment and prepare a safety plan that is presented to the class.

MADS6618
3 Credits
Leadership Plus

Master the best practices of great leaders, past and present. Topics include creative and innovative thinking, super-conscious mental laws, the constant pursuit of professionalism, craftsman-like dedication to quality, building effective self-directed teams, creating an energized workplace, the characteristics of effective learning organizations, capitalizing on leverage and the art of identifying and designing a shared destiny.

MADS6620
3 Credits
Human Resource Systems: Approaches and Techniques for the Modern Workplace

New approaches and techniques in human resource systems go beyond the theories and principles of personnel administration. A "hands-on" experience that utilizes case studies in each topic allows students to devise solutions. This course will use case studies, lectures, assigned readings and recent rulings. State and federal court decisions that impact public, private and not-for-profit sector organizations will be thoroughly examined.

MADS6626
3 Credits
Law-enforcement Executive Leadership Seminar

New and complex challenges facing the law-enforcement community worldwide will be studied and discussed with top criminal justice leaders in Great Britain and the United States. Subjects include multijurisdictional police forces — Europol and Interpol, policing in a multi-racial society, riot and public order, leadership and community policing, forensics and crime-scene investigation, combating drugs, the global impact of terrorism and combating chemical and biological warfare.

MADS6627
3 Credits
Women's Leadership in Today's Global World

Public, private and not-for-profit sector administration and leadership development challenges are compared and studied as part of a women's leadership seminar focusing on global networking. Presenters are renowned CEOs and scholars whose cutting-edge accomplishments have distinguished them as leaders representing the public and not-for-profit sectors in and outside the United States. Study is combined with travel and experiential learning. This course begins with a mandatory orientation at FDU's Metropolitan Campus. The class will discuss course format, research-paper requirements, books and other practical concerns of the trip.

MADS6628
3 Credits
Building Strategic Partnerships

Building strategic partnerships is key to organizational survival and success. This course will use case studies to explore the principles, approaches and motivations behind some of the most noteworthy collaborations forged by private and not-for-profit leaders.

MADS6629
3 Credits
Planning and Program Development

Effective program development requires a clearly stated purpose of what an organization is trying to achieve, compelling evidence that demonstrates the importance of that need and a well-reasoned plan that outlines how an organization will meet this need in a cost-effective manner. This course will explore how to turn an idea into a feasible project that merits funding. Students will learn the skills and strategies needed to assess need, plan for and design identifying trends and organize and manage information. Valuable online resources will be explored zeroing in on the top internet sites for research, reference and continued learning.

MADS6631
3 Credits
Advanced Funding Practices

This course is designed to provide an in-depth study of comprehensive fund-raising planning. The course will focus on management issues including assessing organizational readiness, strategic approaches to the development process and evaluating results. The course also will provide students the opportunity to broaden their knowledge with regard to prospect research and cultivation, planned giving, corporate philanthropy and cause-related marketing.

MADS6632
3 Credits
Technology Applications for Not-for-Profit Management

Learn to develop an approach to technology that best serves the needs of the organization. This course will provide an overview of how to plan for technology including website development, online marketing, database management, finance, accounting and working with consultants.

MADS6633
3 Credits
GIS and Emergency Administration

The course will provide an overview of GIS (Geographic Information Systems) applications at the administrative level of emergency management. Topics covered will include uses of GIS within the planning and mitigation phases, along with response and recovery assessments. Students will gain a valuable perspective on planning for and administering resources. A final course project will be assigned to integrate GIS budget funding and implementation strategies relative to individual administrative roles.

MADS6634
3 Credits
Community Threat Assessment and Risk Analysis

An analytic course designed for public safety officials, elected officials and business community leaders for developing collaborative approaches to counterterrorism and other security threats. Topics include vulnerability assessments, hazard mitigation, best practices, emergency planning, physical security surveying, networking of experts and community policing. Students will conduct a vulnerability-assessment survey within their organization and community and present a comprehensive response plan.

MADS6635
3 Credits
Legal Research Methods and Analysis

Hands-on study of methods of legal research for nonlawyers, with a concentration on utilizing both fee-based and free internet legal sites. Instruction also will be provided in the procedures used in analyzing and interpreting court opinions and statutes. Students will prepare and present a legal brief, with supportive references and arguments, regarding an assigned legal issue. This hybrid course consists of classroom instruction, asynchronous online delivery plus independent research at FDU’s law collection (Lexis Nexis and Westlaw).

MADS6636
3 Credits
Global Preparedness for Catastrophic Emergencies

This course, taught by international experts, covers the following topics in a lecture/seminar format: emergency management, hazardous risk analysis, social dimensions of disasters, disaster recovery and organizational continuity; the psychology of terrorism, counterterrorism, weapons of mass destruction, biodefense mobilization and cyber security and forensics.
MADS6637  
3 Credits  
**Computer Systems Seizure and Examination**  
This analytic course will cover the appropriate protocols for seizure of computer systems and their examination in cases of internet or computer fraud, terrorism, child pornography, internet crimes and other high-tech crimes or violations of organization rules and regulations. It will explore the use of technology to retrieve data and copy data on computers and on websites without disturbing the original data/site. It will study essential protocols needed to ensure the integrity of the data from the investigation process through prosecution or administrative disciplinary procedures.

MADS6638  
3 Credits  
**Computer Security Administration**  
This course will provide an introduction to the basics of computer security (confidentiality, message integrity, authenticity, etc.) and investigate ways to prevent hackers from accessing websites. Encryption processes and firewall protection may not be enough for someone who wants to access data maintained on a computer or system. The course will analyze formal criteria and properties of hardware, software and database security systems, and will determine ways to improve overall site and system security. Additional topics to be reviewed include: formal specifications, verification of security properties, security policies that include hardening a site and preventing an intrusion, detection of an intrusion and how to react to such an intrusion, safeguards for systems, organizational training and protocols and other methods for providing data security in this technological age will be reviewed and assessed.

MADS6639  
3 Credits  
**The Forensic Expert**  
This analytic course will study what is necessary to become a forensic expert, the methods for preparing and presenting technical information in a courtroom or administrative-hearing setting and the use of technical and scientific witnesses in the area of high-tech crimes or violations of or agency rules and regulations. Appropriate interaction with criminal justice agencies to develop internal security protocols will be emphasized. Individuals will learn how to trace security intrusions, what constitutes admissible proof, how to manage evidence and how to develop proactive initiatives in this area.

MADS6640  
3 Credits  
**Leading in Times of Crisis**  
This course examines 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 during the planning, implementation and execution of the World War II D-Day operation of June 1944.

MADS6641  
3 Credits  
**Contemporary Legal Issues**  
This seminar will examine relevant legal issues in the workplace with a comparison of United States and United Kingdom law. Topics presented by leading experts will include workplace violence, social and privacy issues in the workplace, the troublesome employee, harassment in the workplace and various issues of hiring and termination.

MADS6642  
3 Credits  
**Global Health and Human Services Systems**  
Offered in the United States with the option of an international setting, this course includes a comparison of health and human services philosophies, concepts and practices. Policy decisions and politics of health and human services delivery mechanisms are discussed with special emphasis on problem analysis and strategies to address issues.

MADS6643  
3 Credits  
**Community Needs Assessment and Qualitative Analysis for Health and Human Services**  
Presents a framework for conducting and analyzing health and human services needs within the community. Designing projects, methods of collecting data, matching evaluation plans with community priorities and writing and evaluating proposals/reports providing an essential foundation for planning initiatives.

MADS6644  
3 Credits  
**Law, Ethics and Policy for Health and Human Services**  
Examines health and human services within the context of law, ethics, policy and the role of government and society. Provides a framework for analyzing policies in terms of social needs, workplace diversity and environmental issues in the context of exposure to liability and prevention of lawsuits.

MADS6645  
3 Credits  
**Marketing Social Change**  
Fundamental marketing concepts are applied to health and human services issues as a means to bring about social change. Attention is given to understanding the needs, wants and perception of the consumer in developing a social marketing plan, implementing it and evaluating its impact.

MADS6646  
3 Credits  
**Finance and Accounting for Health and Human Services**  
This course provides an overview of fiscal administrative decision-making and financial performance in health and human services organizations. Budget course and structure, planning and preparation, revenue forecasting, reporting, controls, cash-flow management, grants, endowments, audits and evaluation are emphasized.

MADS6647  
3 Credits  
**Organizational Planning and Risk Communications**  
Risk communications practices, emergency-operations planning and theory for public, private and not-for-profit organizations. Includes an overview of existing federal, state and local emergency-operations planning and communication processes using case studies and practical exercises.

MADS6648  
3 Credits  
**Disaster Recovery and Organizational Continuity**  
This course examines the differences between accidents and disasters, the response for disasters, those “players” that will become involved in disaster response and recovery, the disaster cycle and how to maintain operations, whether civilian or military, to ensure organizational continuity. A key element in disaster recovery is the concept of isomorphism, where there is the opportunity for one organization to learn from the experiences of another organization, and this course seize the opportunity to fully capture what has been learned dealing with previous events.

MADS6651  
3 Credits  
**Operations Administration**  
Operations management is the direction and control of various processes that move inputs into completed goods and services. Organizations administer products or services and determine how they are delivered. Various components of the organization must be coordinated to efficiently provide these services and/or products. Decisions are made every day on inventory, scheduling and capacity of the operations. Planning, project management, benchmarking, PERT (Program Evaluation and Review Techniques), CPM (Critical Path Method) and decision making are topics included in this course. This course will deal with management of processes, introduce students to the problems and issues involved with operations management and familiarize students with concepts, languages and tools in both service and production industries.
Administrative Science

MADS6653
3 Credits
Global Citizenship Seminar
Current workplaces are diverse in various aspects. Most organizations have a mix of workers from different ethnic and cultural backgrounds. For leaders, managers and supervisors to be effective in their workplaces, they must be aware of the diversity issues that impact their organization. This is increasingly important in a global context. Global citizenship requires awareness of the challenges globalization presents. Special emphasis will be placed upon a study of leadership, ethical worldview, communications and diverse subcultures presented from a global perspective along with political, social and economic issues. Comparative studies of the different systems will be the focus of student course work. The Global Citizenship Seminar will include various site visits designed to enhance the individual’s understanding of the international issues that have direct and indirect effects on current and long-term goals of an organization.

MADS6654
3 Credits
Forensics Administration
This course examines the principles of forensics administration and how to apply them. Proper administration of forensic work is required to produce consistently high-quality forensic analysis. This course begins with a case study in a failed forensic administration. It provides the context for a review of the basics of forensics administration. Near the end of the course, the class will look at some new concepts. Topics covered include training and education of forensic analysts, accreditation, proficiency testing, audits, evidence presentation, information hiding and strategic redundancy.

MADS6655
3 Credits
Contemporary Issues in Community Policing
This course explores community policing—a revolutionary movement, a philosophy and an organizational strategy that expands the traditional police mandate. It draws on the fields of administration, supervision, community organization, psychology, sociology, advertising, journalism, public speaking and problem solving. The history of policing is examined to determine how and why community policing has emerged as the predominant philosophy used by police departments today. Special attention will be given to current issues that impact law enforcement and the future of community policing, especially in light of global terrorism.

MADS6656
3 Credits
Social Problems and Solutions
This course presents a conceptual framework for understanding social problems. It presents administrative and managerial roles and issues concomitant with working in government, private and not-for-profit organizations, as well as implications for private enterprise. The nature of social problems, causes and consequences, incidence and prevalence, gainers and losers and underlying ideologies are developed using generalist and specific perspectives. The nature of managerial roles with a focus on solutions is developed theoretically and practically.

MADS6658
3 Credits
Leadership: Global Advanced Scholarship and Practice
The historical discourse on advanced learning has as its genesis work implemented in many Old World cities. This course will investigate the global history of educational institutions and models of scholarship. The topics included are: an overview of leadership, leadership as boundary spanning, diplomatic leadership as a behavior and an organizational auspice, impression management, interpersonal management, interpersonal communications in a multicultural world and levels of government and relationships to the private sector. This course is intended to provide students with theoretical and practical applications of scholarship and leadership. In addition to the course material, students will experience the culture of one of the University’s international partners.

MADS6659
3 Credits
Latin America and Globalization
This customized course reviews the past and current situations of Central and South American countries in relation to the world economy and globalization. Topics include historical relations between Latin America, the United States and Europe; revolution as a response to globalization; World Bank and International Monetary Fund (IMF) projects in Latin America; and the future of Latin-American products in the international market.

MADS6661
3 Credits
Managing Organizational Change
This course provides an overview of the principles of organizational change in order to develop the knowledge skills and abilities to design and/or oversee basic change efforts, understand the change process along with the tools to conduct basic change efforts. The ability to change is essential for individual health and organizational growth and development, but change is often resisted for a variety of reasons.

MADS6662
3 Credits
Customer Service for Public and Not-for-Profit Organizations
Learn how to connect an organization with customers and to train and develop a staff and customers for a shared-learning environment for customer-focused action. Communicate effectively through newsletters, surveys, instructor outreach meetings, videos, press conferences, seminars, internet, email and telephone. Exceed expectations through quality service, gaining trust and building a loyal customer base and civil coalition for a long-term, satisfying and productive leadership.

MADS6666
3 Credits
The New European Map
This course provides students with a comprehensive exploration of the current state of the political environment of Europe through historical background and country-by-country analysis. Topics include the European Union, European legal systems, comparative political systems, the fall of communism, European international relations, etc.

MADS6672
3 Credits
Ethics and Human Rights
Although there are internationally recognized human rights standards, many individuals who are displaced are not afforded the same rights as others. As countries accept a more global view of the world, human rights issues are being brought to the attention of the world. There is also a linkage between values, morality, ethics, law and human rights. This course will investigate the plight of displaced persons as far as human rights and its related issues are concerned. This includes the concept of ethics and ethical treatment of individuals regardless of their status.

MADS6674
3 Credits
Sociological Perspectives of Disaster
This course identifies broadly defined significant historical and contemporary disasters. It then analyzes causes and effects of these disasters using classical and contemporary sociological theory. Particular emphasis is placed on implications for public policy. The course integrates facts, theories and public policies.

MADS6675
3 Credits
Optimum Leadership
This course will explore major theories and practices of scholars and philosophers with a focus on the tools and knowledge necessary for 21st-century leadership development. Principles will be extracted from major contributors in the field, including Drucker, Bennis, Burns, Heifetz, Zenger, Folkman, Kanter, Gardner, Pouzes, Vaill, Greenleaf, Kellerman, Lipman-Bluman, Goleman and others.
MADS6676  
3 Credits  
**Perspectives on Leadership from Films**  
Movies exaggerate and oversimplify, but they can still be compelling case studies for the traits and actions they portray. This course uses a dozen classic movies, readily available for rental or purchase, as the material for the study of leadership issues. Students are invited to contribute insights from other movies and from their own experiences, to complement the assigned films.

MADS6677  
3 Credits  
**Planning for Change in Information Technology**  
New or upgraded information technologies affect many areas of the workplace. The first steps in the development of any automated system are to understand and document what is needed. This course introduces the terms and techniques of information technology requirements planning that help promote a smooth transition from manual procedures or old technologies to new automated tools.

MADS6679  
3 Credits  
**Intelligence-led Policing: Concepts, Practices and Issues**  
This course is designed as an introduction to the intelligence-led policing model. Intelligence-led policing links strategic planning crime analysis, priority setting, accountability, risk management and stakeholder involvement with investigative and front-line delivery of services. The course will include collection and analysis of data and essential actions to be taken. Case studies will be utilized to illustrate principles included in the course.

MADS6680  
3 Credits  
**Strategic Planning for Intelligence-led Policing**  
This course will emphasize highly productive collaborations to address goal setting, problem solving and decision making relative to situational awareness to address crime, homeland security and quality-of-life issues. Assessing environmental issues is also included. This course is designed for current or future senior-level decision makers.

MADS6681  
3 Credits  
**Intelligence Team Management**  
This course will explore methodologies for developing and managing an intelligence initiative that includes the roles of decision makers, analysts and operators. Also included are situations that illustrate collaboration, integration and networking.

MADS6682  
3 Credits  
**Intelligence Analysis**  
This course will investigate the process of moving from raw data to intelligence. Included are methods for analyzing raw intelligence and determining the source credibility, critical thinking, logical reasoning, hypothesis testing and analytical reasoning. Introducing quantitative and qualitative analysis will also be covered. Assessing the validity of information received from various sources will be included along with the importance of maintaining an open mind to information and data. How to represent the analysis and recommendations through finished intelligence products to senior-level decision makers will also be included.

MADS6683  
3 Credits  
**Tactical and Operational Management**  
This course will define and distinguish between tactical and operational management relative to the effective and efficient deployment of resources to respond to crime, homeland security and emergency management issues.

MADS6684  
3 Credits  
**Principles of Information and Intelligence Collection**  
This course will explore the differences between information and intelligence collection within the framework of constitutional safeguards afforded to citizens. Covert and overt data-collection strategies including open-source information types are emphasized.

MADS6685  
3 Credits  
**Fusion Center Operations and Integration**  
This course will explore the methodologies for managing a high-performance fusion center that creates intelligence and warning for diverse constituencies. Included are strategies, principles, and practices for addressing all crimes, all hazards, all threats approach to homeland security and intelligence-led policing.

MADS6691  
3 Credits  
**Preventing Future Columbines**  
This course is based on research using sociology, psychology and brain research to develop program outlines for preventing school violence that may culminate in school shootings. Columbine is used as the index because it was the single most lethal case of school shootings in the United States. In addition, shootings that preceded and followed Columbine, along with Columbine, are examined for commonalities, signs and processes that lead to shooting in the schools as well as programs that can be established to prevent shootings long before the violence escalates. The movement from bullying, the single most important forerunner of lethal violence, to uncontrollable rage, along with lifelong effects on self-imaging and quality of life are also examined.

MADS6692  
3 Credits  
**Cultural Diversity, Stereotype and Profile**  
The human cultural array possesses certain universals such as family, belief systems and modes of socialization. All of these are based on the system of social rules (the norms), which make life predictable and patterned. These also become the basis of stereotypes. A close examination of various subcultures to show their commonalities with all cultures will assist school personnel in reducing adversarial encounters.

MADS6693  
3 Credits  
**Leading Culturally Diverse Workplaces**  
With increased globalization, different cultures, beliefs and values become important aspects that an organization’s leadership must understand and address. Cultural differences may result in conflict or ineffective and inefficient work groups and teams. Leaders who understand their own behaviors and beliefs are better able to acknowledge and embrace cultural differences and understand the implications of the global market and human capital strategies. This course will explore the dimensions of diversity, cross-cultural models, assessment tools and best practices to improve cross-cultural relationships. Effective team building and the impact of team-building activities on culturally diverse populations will be discussed. In addition to assigned readings and student projects, this course will include an international experience.

MADS6694  
3 Credits  
**New Challenges of Leadership in a Global Society**  
The importance of advanced leadership skills will be explored in all areas confronted by the challenges of the global society. Emphasis will be placed on current trends in global-communication conflict management and international negotiation. Priority of study on latest trends in each activity will be highlighted.

MADS6695  
3 Credits  
**Advanced Employment Law**  
This course is designed to provide an in-depth study of the essential principles and foundations of employment law for managers and human resource personnel. The course will cover theories and practical applications of contractual law as a source of employment obligations, public policy claims, exceptions to the employment-at-will concept, workplace torts, federal and state regulation of the employment relationship with

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**Administrative Science**
emphasis on the various laws against workplace discrimination and controlling court cases, family leave, health and safety issues, wage and hour considerations, disability and unemployment compensation. The course will be concluded with practical considerations concerning the present status of the various areas discussed.

MADS6696
3 Credits
Building Effective Teams
Establishing teamwork in an organization is not easy. This course provides students with a comprehensive overview of the team-leadership skills that make and keep organizations competitive. Topics include: team fundamentals, managing by vision and principle, achieving improvements in quality and productivity, setting goals and boundaries that change as the team matures, resolving common team problems.

MADS6697
3 Credits
Current Issues in Cyber Forensics
This course will emphasize the use of computers and computer technology in investigating cases where computers or computer technology played a significant role. Techniques for safeguarding evidence, computer fingerprinting of suspected parties and interacting with investigative authorities will be covered. Students will become familiar with core computer science theory and practical skills necessary to perform preliminary computer forensic investigations, understand the role of technology in investigating computer-based crime and be prepared to deal with investigative bodies at basic levels. Students will also learn various techniques that aid in preventing computer incidents and recovery from such events.

MADS6698
3 Credits
Current Issues on Terrorism and Security
This course provides an in-depth analysis of terrorism, the ideological forces and psychology behind terrorism and its worldwide network. Discussions and class assignments will focus on what government leaders can do to prepare their communities for the effects of a catastrophic event including assessing their security plan, its design and construction, agency policies, procedures and various types of security staffing.

MADS6700
3 Credits
Global Technology Project Management
The course addresses the role of the project manager and the project team at each phase of the project life cycle. It will educate students about information technology project-management skills through hands-on exercises, interactive case studies and relevant discussions with peers.

MADS6701
3 Credits
Introduction to Computer Network Security
This course will introduce the basics of computer network security for the professional or personal user. The course will include both theoretical and practical application processes to block unauthorized access, remove covert programs and assess network vulnerabilities. In addition, it will provide mechanisms for strengthening computer network defenses from malicious users. This course is held in the U.S. with the option of taking the course overseas when scheduled, including FDU’s Wroxton College in Oxfordshire, England.

MADS6702
3 Credits
Investigation of Computer System/Network Emergencies
This course will introduce students to computer-system emergencies and responses to these emergencies. It will explore techniques and system configurations to create redundancy in critical computer systems and learn proper standards for data backup and recovery. It will also cover the pros and cons of adapt encryption. Students will learn how common hacking techniques are used for computer system intrusion as well as common techniques used to obtain information from employees. Also covered will be the development of a user agreement for the workplace, remote users and vendors with access to systems and consultants.

MADS6703
3 Credits
Public Presentations and Media Strategies
This course provides the knowledge and skills needed to develop effective media-relations strategies for an organization. Public presentation skills are addressed in the context of developing and delivering effective messages, persuasion and communicating with key audiences during crisis situations. Emphasis will be placed on targeting audiences and analyzing their needs, developing positive working relationships with journalists and creating plans and policies which use media relations to enhance organizational goals.

MADS6704
3 Credits
Managing Media Relations: From Local to Global
This course will offer practical, hands-on techniques in understanding the media, how to build relationships with journalists, how to communicate messages effectively and clearly and what steps to take when faced with a crisis. The aim is to equip administrators with common-sense tools to properly manage their own messages while also handling a variety of media — from newspapers to radio and TV to the Internet.

MADS6705
3 Credits
Homeland Security and Constitutional Issues
This required course provides an overview of constitutional issues, statutes and case law that govern homeland security professionals at the local, state and federal levels. Social, ethical and political implications of actions intended to preserve the safety and security of citizens are studied in relationship to the legal constraints placed on systems. This course will utilize case studies.

MADS6706
3 Credits
Collaborative Leadership
This course will investigate the concept of leadership exhibited by a group that is acting collaboratively to resolve issues that all feel must be addressed. Since the collaborative process ensures that all people who are affected by the decision are part of the process, the course will explore how power is shared in the process and how leadership is developed.

MADS6707
3 Credits
The Impact of Terrorism on School Safety
Increased incidents of violence in the schools has impacted how schools are responding to and preparing for potential issues. This course will investigate the latest school-violence trends, including fatal and nonfatal shootings, and the threat of terrorist attacks on American schools. The impacts of terrorism on school safety as well as crisis planning and current strategies for preparedness planning will be analyzed. Case studies of incidents as well as best practices in both the United States and the world will be studied.

MADS6708
3 Credits
Special Topics: Administrative Research*
This course surveys the basic methods of research likely to be encountered by administrators. The goal of the course is not to make students researchers or statisticians but to make them better research and statistics consumers. Quantitative techniques help administrators make budget projections, set staffing levels, determine service quantity and delivery logistics and estimate service demand. Topics covered include descriptive statistics, measurement and research design, inferential statistics and regression.

*Qualifies for administrative or analytic competence. Students are permitted to take two Special Topics courses in the M.A.S. program. Contemporary issues in administrative sciences — specific course topics will vary — may be repeated once for credit. Examples include customer service, professional development seminar, entrepreneurial public and not-for-profit organizations, administration organizational changes, public policy issues and analyses, etc.
### Administrative Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
<th>Title</th>
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<tbody>
<tr>
<td>MADS6709</td>
<td>3 Credits</td>
<td>Special Topics: Creativity, Change and 21st-century Leaders*</td>
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<tr>
<td>MADS6717</td>
<td>3 Credits</td>
<td>Special Topics: Leading Out of the Mainstream*</td>
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<tr>
<td>MADS6710</td>
<td>3 Credits</td>
<td>Special Topics: Dissonant Issues Seminar*</td>
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<tr>
<td>MADS6714</td>
<td>3 Credits</td>
<td>Special Topics: First-responder Stress Awareness and Management*</td>
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<tr>
<td>MADS6715</td>
<td>3 Credits</td>
<td>Special Topics: Global Terrorism and Emergency Management Preparation*</td>
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<tr>
<td>MADS6718</td>
<td>3 Credits</td>
<td>Special Topics: Lifestyle Modification for Leaders*</td>
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<tr>
<td>MADS6720</td>
<td>3 Credits</td>
<td>Special Topics: Metropolitan America: Influence of the Past and Future*</td>
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<tr>
<td>MADS6730</td>
<td>3 Credits</td>
<td>Malware Investigations</td>
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<tr>
<td>MADS6731</td>
<td>3 Credits</td>
<td>Executive Communication as a Leadership Tool*</td>
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<tr>
<td>MADS6732</td>
<td>3 Credits</td>
<td>International Conflict Resolution*</td>
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<tr>
<td>MADS6733</td>
<td>3 Credits</td>
<td>World Economy and Globalization*</td>
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<tr>
<td>MADS6735</td>
<td>3 Credits</td>
<td>Introduction to Countermeasures for Malware*</td>
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Students are permitted to take two Special Topics courses in the M.A.S. program. Contemporary issues in administrative sciences — specific course topics will vary — may be repeated once for credit. Examples include customer service, professional development seminar, entrepreneurial public and not-for-profit organizations, administration organizational changes, public policy issues and analyses, etc.
MADS6740  
3 Credits  
Comparative Political Systems  
This course provides an overview of the main political regime, considering the different branches of power political parties, electoral systems, citizen participation, mass media, pressure groups and social movement. The course consists of case study and independent research.

MADS6741  
3 Credits  
Information Literacies and Research  
Research today requires competence in using information representations across a wide range of media, from print to Facebook. This course is a “hands-on” entry to the Information Age and explores topics such as knowing when information is needed and accessing and managing the information legally to solve the problem.

MADS6742  
3 Credits  
Learning Theories and Practice  
There are many theories that address how individuals learn. This class will explore learning theories and practices, intelligence and learning styles, formative-learning outcomes assessment, tutoring practicum and the concept of learner-centered education.

MADS6743  
3 Credits  
Connectivism: New Learning Environments  
Increased use of technology has led to the development of a theory specifically related to the digital age. This course explores the new learning environment along with its technology, and includes topics such as: learning-support technologies, e-portfolios, social learning and knowledge building and the collaboration they enable.

MADS6744  
3 Credits  
Academic Support  
A learner-centered environment may involve a series of support services to ensure the learner is attaining his or her potential. This course will explore various services available to students both on and off campus as well as adults who seek to educate themselves.

MADS6745  
3 Credits  
New Media Literacies  
This course provides an in-depth look at “new” media and representational diversity. Digital, multimedia representation access and utilization, basic visualization tools and practices and the use of online social networks and video gaining as learning media will be explored.

MADS6746  
3 Credits  
Specialized Research and Argument  
This course will focus on an inquiry/discovery research project of interest and value to the individual or organization. It will include a survey of a variety of research methods, an analysis and presentation of findings.

MADS6747  
3 Credits  
Relational Leadership  
As the world continues to become even more complex, the need to connect and collaborate across disciplines, functional realities and worldviews is a necessity. This complexity calls for leadership that is inclusive, ethical, empowering and sustaining. Whether viewed from an individual, group or process perspective, leading is very much about relating on every level and from different perspectives. Notable theory and research in the field will be discussed in a case-study approach to relational leadership. This course will explore relational leadership and its international implications for individuals and organizations.

MADS6751  
3 Credits  
Cultural and Social Awareness Seminar  
As individuals become more global in their perspectives, it is important that they understand how cultures and social structures are impacting their lives. Each person has a culture upon which beliefs and values are based. This course will explore various components relative to culture and social groups, such as diversity, verbal and nonverbal differences, prejudices and biases and barriers associated with culture and social awareness. This seminar will explore cultural and social awareness through case studies, the media, films, lectures and discussions.

MADS6752  
3 Credits  
Current Issues in Latin America  
This course provides students with a comprehensive exploration of the core issues in Latin America through historical, political and social background and country-by-country analysis. Topics will include economic and comparative politics.

MADS6753  
3 Credits  
Special Topics: Elder Care: Legal Issues*  
Increases in the elderly population have resulted in new and complex issues and concerns that impact everyone. These issues include making decisions for the elderly, caregiving, maintaining self-sufficiency or assistive-living accommodations and home and estate planning. This course will explore topics such as informed consent, decision-making capabilities, legal issues related to death and dying, privacy rights, geriatric services and funding, age discrimination and family-law issues. In addition to lectures, the course will include case studies and discussions.

MADS6758  
3 Credits  
Politics, Ideologies and Religion in the Middle East  
This course provides students with a comprehensive exploration of the politics, ideologies and religious issues through historical, political and social background. Lectures will also include a country-by-country analysis.

MADS6760  
3 Credits  
Economics in the Middle East  
This course provides students with a comprehensive exploration of the historical and current economic issues of the Middle East, taking into account oil as a key resource and its multiple political and economic consequences. Topics will also include country-by-country analysis.

MADS6762  
3 Credits  
Current Issues in Immigration Law  
Topics will include human resources, political, economic and cultural issues involved in immigration law. It also will discuss the practical side of immigration in today’s business world.

MADS6763  
3 Credits  
Grants and Sponsored Projects Operations  
Receipt of a grant or funded project requires a solid foundation of concepts, methods and requirements necessary to administer the enterprise. This course will cover the steps involved in setting up a grants-management system, managing documentation in line with compliance obligations, ensuring due diligence, reporting properly and utilizing best practices in implementing and completing the project as planned.

*Qualifies for administrative or analytic competence. Students are permitted to take two Special Topics courses in the M.A.S. program. Contemporary issues in administrative sciences — specific course topics will vary — may be repeated once for credit. Examples include customer service, professional development seminar, entrepreneurial public and not-for-profit organizations, administration organizational changes, public policy issues and analyses, etc.
Many organizations rely on volunteers to provide MADS6778 3 Credits White-collar Crimes
White-collar crimes were originally those identified as embezzlement or theft after trust offenses. Technology has made this crime more difficult to investigate and prosecute. In addition, there are issues with sentencing and what appears to be leniency in these cases. This course explores the total issue of what these crimes are, how to investigate and prosecute them and the courts’ impact on the issue.

MADS6779 3 Credits Mass Communication Theories
Mass communication involves creating and sending a message to a large group. Those in the field of public relations need to understand these theories and utilize them as efficiently as the media, which have studied this and have utilized different theories to get their message out. A number of theories will be studied, including diffusion theory, cultivation theory, media dependency and functional approach to mass communication, among others.

MADS6780 3 Credits Society and Mass Communication
This course explores the relationship between society and mass communication. Mass communication influences society in various ways, including advertising and education. Society’s beliefs, values and norms are influenced by the media and also influence the media. The media provide news, information and even entertainment.

MADS6781 3 Credits Social Media Marketing
Social media has become a necessary component of leading digital marketing programs. This course explains how to use social networks such as Twitter, Facebook, blogs, YouTube, message boards and other social media to understand what customers are saying. More importantly, this course helps students act on that knowledge with smarter digital campaigns in social media and elsewhere that show provable return on investment.

MADS6788 3 Credits Political and Economic History of Latin America
The history of Latin America beginning with the Spanish conquest and colonial period; the Independence movements; the new Republics and their evolution in the 19th century; social, economic and political perspectives. Students will do research on particular countries based on case studies.

MADS6789 3 Credits Modern Latin America
A comprehensive exploration of the most important trends and events affecting social, economic and political structures in Latin America during the 20th century. Circumstances specific to individual nations will be subject to case studies.

MADS6790 3 Credits Economic Development in Latin America
Latin-American nations as “developing countries”; research on the economic, political and social causes that explain current situations, consideration of poverty, income inequality, social discrimination, lack of technology and capital, increasing public debt, weak public institutions and the like, as well as the economic models and alternatives addressing these general difficulties.

MADS6791 3 Credits Economic Integration and Free Trade Agreements in Latin America
Recent attempts to achieve regional economic integration in South America, Central America and the Caribbean; review of these efforts, taking into account achievements and remaining difficulties; consideration of new economic trends based on globalization and Free Trade Agreements among certain Latin American countries and other nations or block of nations, such as the United States, China and the European Union.

MADS6795 3 Credits Brazil, Mexico, Colombia and Argentina: A Comparative Perspective
Brazil, Mexico, Colombia and Argentina are currently the most populated countries of Latin America. Each has an economic, political and social background that shows, with respect to the others, some similarities and differences; a comprehensive exploration of their current political situations and economic models, as well as social issues such as poverty, income distribution, discrimination, women’s place in society, public debt, natural resources, foreign capital and the like.

MADS6794 3 Credits Cuba: Past, Present and Future
Cuba as a Spanish colony; Jose Marti’s ideology and the struggle for Independence; the Spanish-American War; the first decades of the new republic; Fulgencio Batista’s dictatorship; and Fidel Castro’s revolution, as well as the five decades of communist regime; its relationship
with the United States and the World; the current situation under Raul Castro’s government, and the perspectives for the near future.

MADS6803
3 Credits
China: Past, Present and Future
A comprehensive exploration of China’s history and its impact on contemporary Chinese policies toward trade, democracy, human rights, resources, religious toleration and diversity, demographies, ethnic groups and China’s role on the world stage.

MADS6806
3 Credits
Exploring the United Nations
History of the United Nations; its mission, membership, leadership; the General Assembly, Security Council, Economic and Social Council and other constituent bodies; the United Nations and global issues, for example, human rights, the environment, nuclear weapons; the United Nations as an ideal and as a reality — achievements and controversy.

MADS6808
3 Credits
Current Issues in Central and Southern Asia
A comprehensive review of current issues in central and southern Asia. Countries discussed include: the former republics of the Soviet Union, Pakistan, Afghanistan and India; the nations of southeast Asia, such as Cambodia; and other important regions. Economic, political, cultural and social developments are studied through country-by-country and cross-cultural analysis.

MADS6809
3 Credits
The World of Tomorrow
This course provides an interesting exploration of the main forces that will determine the world of tomorrow. Topics include the changing nature of war; the mob impact of the new social mass media (Twitter, Facebook); security versus privacy (data-mining); and climate change, to the erosion of borders and sovereignty, free markets versus socialist ideals and the like.

MADS6813
3 Credits
The U.N. Millennium Development Goals
This course takes the students through analysis of the eight millennium development goals (MDGs), which range from extreme poverty rates to halting the spread of HIV/AIDS and providing universal primary education, all by the target date of 2015 — to form a blueprint agreed to by all the world’s countries.

MADS6814
3 Credits
Regional Organizations
Selective exploration of regional organizations and their political, economic and strategic purposes and impact; organizations representative of the major geographical global regions: the European Union, the African Union, NAFTA, NATO and the Andean Group will be among those studied.

MADS6816
3 Credits
The Impact of Media in World Politics
This course will provide a comprehensive exploration of the impact of media in world politics, taking account of the different regions and considering some case studies.

MADS6817
3 Credits
Diplomacy and the U.S.A.: The Impact of Global Leadership
This course will examine the importance of global leadership in international relations within the context of a review of the diplomatic history of the United States. Among the topics to be explored are: global leadership, internationalism, isolationism, realism, idealism, multilateralism and unilateralism.

MADS6818
3 Credits
Sustainable Development
Issues of growth in developing countries; limits of expansion in developed nations; the impact of environmental concerns and proposed solutions; the sustainability of United States and European expansion.

MADS6819
3 Credits
Women’s Rights
This course provides a comprehensive and comparative vision of women’s rights in today’s world. Although women’s presence has highly increased in areas such as politics, economics, literature, public relations, arts and medicine in the last 50 years, there are still regions of the world where women’s rights and opportunities are severely weakened. A comparative perspective of ideologies, religions and cultures will give the students a renovated approach on this fascinating topic.

MADS6820
3 Credits
U.N. Truths and Half Truths
This course provides a comprehensive exploration of the United Nations’ goals and structure, considering its main organs such as the secretary-general, Security Council, General Assembly and Economic and Social Council (ECOSOC). It will emphasize their dynamic roles, in particular their achievements and missing objectives in today’s world, taking account of a great variety of topics: human rights, nuclear weapons, environmental issues and the like.

MADS6821
3 Credits
Russia: Past, Present and Future
This course provides an exploration of the Russian past, considering the Soviet era as well as the transition to the Russian Federation, taking account of the main political, economic and social aspects. The course also studies the role Russia plays in today’s world as a member of the United Nations Security Council, and analyzes its relationship with the United States, the European Union, China and other regions of the world.

MADS6822
3 Credits
Terrorism and Terrorist Acts
This course provides a comprehensive approach to the concepts of terrorism, its psychology and impact on governments and societies. Analyzing different aspects such as intelligence, cyber security legislation and international collaborations in order to develop a strong counterterrorism policy. Specific terrorist acts will be considered taking account of their causes and effects.

MADS6823
3 Credits
Global Migration: Past, Present and Future
This course provides students with an understanding of the most important periods of migrations throughout history, as well as the main trends in today’s world considering their causes, consequences and different state policies. Particular emphasis will be given to the economic relations among societies during the globalization era.

MADS6824
3 Credits
U.S. Presidential Campaigns: Foreign Perspectives
This course provides an overview of United States presidential campaigns, focusing on the rules for competition, the political parties and their candidates, the role of ideologies, money, media and public opinion and, more specifically, foreign perspectives and implications for the world of today.

MADS6825
3 Credits
Introduction to Diplomacy and International Relations
This course is directed to students interested in contemporary international politics and relations between various actors in the international scene. Students will become familiar with the leading theories and concepts of international relations in conjunction with the historical con-
text, explaining overall dynamics in global affairs such as human rights, globalization, security, terrorism and the like.

MADS6826
3 Credits
ISIS or The Islamic State
This course provides students with a comprehensive exploration of the origins, methods and goals of this terrorist group as well as the main strategies developed by the United States and other world powers to encounter it. Topics include particular terrorist actions and reactions, media coverage, religious extremism, military organization, international promotion and the like.

MADS6827
3 Credits
U.S.A.–Latin America Relations
This course will provide a comprehensive exploration of the political, economic, social and cultural relations between the United States and Latin America throughout history. It will also require some special case studies.

MADS6828
3 Credits
U.S.A. New Foreign Policy: Risks and Fears
The United States foreign policy under Trump’s presidency explores interesting issues such as free trade agreements; economic relations with China, Cuba and Venezuela; the wall and the Mexican border; immigration; ISIS; terrorism; the support to NATO; Guantanamo; and the like.

Biology (M.S.)

This program is offered at both the Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey. These programs are listed by campus: Florham Campus, this page, and Metropolitan Campus, page 56.

Biology (M.S.)

Florham Campus
This program is offered under the auspices of the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admission Requirements

1. Graduation from an accredited college or university with at least a 2.75 cumulative grade point ratio.
2. At least 24 semester hours in biology and a general program, including related scientific subjects, that would be equivalent to the biology major program offered for the Bachelor of Science degree at Fairleigh Dickinson University. Students who are deficient in some subject, but whose records are otherwise superior, may make up their deficiencies while they are enrolled in the graduate program.
3. Submission of an official score report for the Graduate Record Examinations (GRE) General Test, Medical College Admission Test (MCAT) or Dental Admission Test (DAT) taken within the last five years. (The GRE, MCAT or DAT test requirement is waived for applicants who have completed a master’s degree.)
4. Three letters of recommendation.
5. Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Science Degree

1. A minimum of 32 credits, the equivalent of one year of full-time study beyond the undergraduate degree, is required for the Master of Science degree in biology.
2. A minimum of 21 credits must be biology courses, 12 of which must be completed within the department of biological and allied health sciences of the Maxwell Becton College of Arts and Sciences.
3. Specialized areas of concentration include business, chemistry/pharmaceutical sciences, education and psychology/counseling (minimum of 12 credits).
4. Electives, up to 12 credits, may include graduate courses from business, chemistry, education, psychology or as approved by the graduate program director. Students should note that Silberman College of Business courses taken by M.S.
students in biology also may fulfill preliminary requirements for an M.B.A.

5. A maximum of 6 credits may be transferred from other institutions, with the approval of the graduate program director.

6. Students must consult the graduate program director when registering for courses.

7. A cumulative grade point ratio of 3.00 (B) is required for graduation. If a grade lower than a B is attained, the student will be placed on probation and warned that any additional grade below a B will result in dismissal from the program. A grade of D or F will result in automatic dismissal from the program.

8. Students have the option of completing their degrees with or without a research and thesis option.

Students who select the research and thesis option must declare their intent before registering beyond 15 credits and must begin preliminary work with a mentor. Students selecting the research and thesis option must complete the 4-credit sequence consisting of BIOL7803 Research and Thesis I and BIOL7804 Research and Thesis II. The thesis topic must be presented to and approved by the faculty. The thesis must be written in the prescribed form and submitted for review by members of the graduate faculty. A thesis defense must be scheduled and the thesis successfully defended as a requirement of graduation.

Students who do not select the research and thesis option must complete two additional biology courses in lieu of BIOL7803 Research and Thesis I and BIOL7804 Research and Thesis II (33 credits required).

9. Students must obtain written approval from the biology graduate adviser prior to registering for any class outside of Becton College.

Concentration in Business Areas

This curriculum is designed to enable biology graduate students to have a concentration in the business areas of either management, marketing or finance.

Curriculum Requirements

The same 21-credit requirement as for the Master of Science degree in biology (see page 53) and at least 12 credits of business courses taken as a unit concentration. Courses may not be selected at random from the three areas of concentration. An adviser from the Silberman College of Business must be consulted. Any business course that an adviser from the College of Business deems appropriate may be selected.

Concentration in Chemistry/Pharmaceutical Sciences

This curriculum is designed to enable biology graduate students to have a concentration in chemistry and pharmaceutical sciences.

Curriculum Requirements

The same 21-credit requirement as for the Master of Science degree in biology (see page 53) and at least 12 credits of chemistry courses taken as a unit concentration. An adviser from the department of chemistry and pharmaceutical science must be consulted. Any chemistry course deemed appropriate by the adviser may be selected.

Concentration in Education

For those allied health professionals interested in teaching in their professions, FDU offers an M.S. in biology with an education concentration. A master's student would take at least 21 graduate credits in biology and at least 12 credits in education.

Curriculum Requirements

The same 21-credit requirement as for the Master of Science degree in biology (see page 53) and at least 12 credits of education courses taken as a unit concentration. An adviser from the Peter Sammartino School of Education must be consulted. Any education course deemed appropriate by the adviser may be selected.

Concentration in Psychology/Counseling

This curriculum is designed to enable biology graduate students to have a concentration in psychology and counseling.

Curriculum Requirements

The same 21-credit requirement as for the Master of Science degree in biology (see page 53) and at least 12 credits of psychology courses taken as a unit concentration. An adviser from the department of psychology and counseling must be consulted. Any psychology course deemed appropriate by the adviser may be selected.

Course Offerings

Courses offered fall, spring and/or summer are so noted. To determine availability of courses for each semester, please contact the department of biological and allied health sciences at (973) 443-8778 or consult the FDU website, WebAdvisor (http://webadvisor.fdu.edu).

BIOL6010
3 Credits
Global Parasitology Lecture

The history, geographic distribution, life cycles, diagnosis, symptomatology, control and treatment of protozoan-, helmint-, fungus- and arthropod-borne diseases; their effects on humans, domesticated and wild animals and economically important crop plants; plant and animal diseases that influenced history; and pathogens important in today's world will be studied in detail.

BIOL6011
1 Credit
Global Parasitology Laboratory Workshop

Designed to complement BIOL6010 Global Parasitology Lecture, this course is a hands-on study of microscopic specimens and preserved materials emphasizing the structure, identification and life cycles of major protozoan, fungal and helmint parasites and arthropod vectors. Corequisite: BIOL6010 Global Parasitology Lecture.

BIOL6051
3 Credits
Mycology

A survey of the fungi with emphasis on taxonomy, morphology, physiology and economic importance, including current research (primary journal articles, reviews and invited presentations). Corequisite: BIOL6032 Mycology Laboratory.

BIOL6052
1 Credit
Mycology Laboratory

Students will learn the techniques used by mycologists to observe diverse fungal groups and how to isolate and identify fungi from natural and artificial sources. Corequisite: BIOL6051 Mycology.
Biology

BIOL6100 3 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments, including the ecology of intertidal, estuarine, pelagic, tropical, and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at individual, population and community levels of organization. Requires major research paper and readings from primary literature.

BIOL6380 3 Credits
Animal Behavior
A study of the causation, development and adaptive value of behavioral patterns of animals as individuals and in groups. Topics will include biological rhythms, migration, interactions, communication, reproductive behavior and sociality. Requires major research paper and additional readings from primary literature.

BIOL6430 3 Credits
Cell Biology of Cancer
Cancer is a collection of different genetic diseases. This course will discuss the major genes and cellular pathways that play a role in cancer. It will explore how these genes regulate the cell under normal conditions, and how they are perturbed in cancerous cells. The course will also cover some of the latest cancer therapies developed to target these misregulated genes.

BIOL6445 3 Credits
Cell Signaling in Development and Human Disease
This course will cover the details of intracellular and extracellular communication. Topics will include cell communication channels such as gap junctions, cell-signaling molecules such as growth factors and hormones, cellular receptors, cytoplasmic signal-transduction cascades and regulatory molecules changing gene expression based on certain cell signals. The course will also discuss the impact of cell signaling on pattern formation during development and its misregulation in diseases such as diabetes.

BIOL6470 3 Credits
Reproductive Biology
The course will provide a comprehensive examination of vertebrate reproduction. The goal will be to provide a foundation in the field of reproductive biology with an understanding of the principles and mechanisms of vertebrate reproduction. Topics will include: the genetics of sex determination, the evolution of sex, wildlife contraception, the biology of fertilization, the role of hormones in reproduction and cloning. Students will be expected to read and discuss peer-reviewed scientific literature in addition to articles from popular and scientific press. Grading will be based on lecture exams and one major project.

BIOL6650 3 Credits
Emerging Pathogens
Human pathogens include bacteria, viruses, protozoan parasites and fungi. The goal of this course is to examine how pathogenic organisms cause human infections, and the underlying mechanisms of host defense and response to these pathogens. This course will provide students with a comprehensive introduction to the factors involved in pathogenic-derived human diseases. Pathogen mode of action, current relevance and emergence factors will be discussed in detail. The course will include both lectures and discussions of primary research articles.

BIOL6660 3 Credits
Ecotoxicology
This course will provide a foundation in the field of environmental toxicology and an understanding of the mechanisms and effects of toxic exposure in organisms. In addition, this course will incorporate specific environmental and ecological examples from primary literature. Topics include: acute and chronic exposures, bioaccumulation and trophic transfer of toxic compounds, sublethal and lethal effects of compounds on organisms, biomarkers, biomonitoring and population and community-level effects of toxic exposure. Requires major research paper and additional readings from primary literature.

BIOL6670 3 Credits
Immunobiology
A comprehensive study of the foundations and principles of immunology. The semester will be divided into four sections covering immunobiology, immunobiology, immunogenetics and immunopathology. Topics include antibody structure and diversity, allergy, mechanism of cellular immunity, histocompatibility, autoimmunity and tumor immunology.

BIOL6741 3 Credits
Endocrinology
The ductless glands, their hormones, interrelationships and influences on physiology, behavior, internal chemistry and disease. Glands of non-mammalian forms are studied; modern experimental methods and results are discussed and evaluated. Prerequisites: 20 credits of biological sciences including courses in anatomy and physiology.

BIOL6830 3 Credits
Selected Studies in Biology
Specific courses may be offered with prior departmental approval of course description and rationale for offering the course based on student interest.

BIOL6867 3 Credits
Psychosexual Development
Human prenatal and postnatal psychosexual development prior to puberty is examined in a descriptive and analytical bilinear model emphasizing interactions among nature, nurture and critical period. Development of the fetal genital system, encoding of neural templates and nomophilic and paraphilic "love maps." Genetic, neuroanatomical and behavioral evidences for biological basis for gender difference, gender identity and gender orientation are considered. Chromosomal, genetic and developmental anomalies in psychosexual development are discussed.

BIOL6873 3 Credits
Cardiovascular Physiology
This course will cover the basic concepts and physiological mechanism of myocardial function, peripheral vascular function and the integrated functions of these two subsystems of the cardiovascular interaction. Interactions among other organ systems will be considered, particularly the interaction of the cardiovascular system with the renal and pulmonary systems. Specific topics include myocardial function, smooth muscle function, regulation of blood flow and blood pressure and transvascular exchange and fluid balance. The cardiovascular system will be considered from the cellular level to the whole organism level.

BIOL6877 3 Credits
Insect-transmitted Diseases
A study of insects and other arthropods as vectors of human and animal diseases; insect life cycle, disease-organism life cycle and environmental conditions for vector development; and disease transmission symptomatology, treatment and methods of control.

BIOL6878 3 Credits
Pathophysiology
Comprehensive study of physiological disorders in human-organ systems; examination of loss of functional capacities of affected organs and evaluation of underlying mechanisms of disease processes; mechanism of action of current therapeutic measures.
Biology

BIOL6879
3 Credits
Human Genetics
Concepts of human genetics, the human genome project and molecular basis of genetic disorders; genetic diversity in human populations; application of genetic technologies in clinical therapy; social and ethical implication of genetic engineering.

BIOL6880
3 Credits
Neurobiology
Neuron-signaling processes including sensory transduction, action potential generation and transmission across chemical and electrical synapses. Sensory, motor systems and higher brain processes are explored. Prerequisites: Human Structure and Function or Human Anatomy and Physiology.

BIOL6881
3 Credits
Renal Physiology
A detailed study of the structure and physiology of the kidneys and urinary system.

BIOL6895
3 Credits
Gene Expression and Regulation
Gene expression, in which genetic information stored in the cellular DNA is decoded, is central to the survival of living organisms. The goal of this course is to introduce the biochemical mechanisms involved in gene expression and describe the principles underlying its regulation. Topics covered include bacterial and eukaryotic RNA transcription, translation and processing. The course includes lecture and discussion of primary research articles.

BIOL7805, BIOL7804
6 Credits (3 Credits Each Semester)
Research and Thesis I and II
The successful completion of a thesis under the supervision of a biology faculty member.

Biology (M.S.)

Metropolitan Campus
This program is offered under the auspices of the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. Graduation from an accredited college or university with a 3.00 cumulative grade point ratio and at least 24 semester hours in biology and a general program, including related scientific subjects, which would be equivalent to the biology major program offered for the Bachelor of Science degree at Fairleigh Dickinson University. Students who are deficient in some subjects, but whose records are otherwise superior, may make up their deficiencies while they are enrolled in the graduate program.
2. Undergraduate academic attainment in biology, which meets with the approval of the graduate biology faculty.
3. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. (The GRE requirement is waived for applicants who have completed a master’s degree.)
4. Three letters of recommendation. Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Required Biology Courses
(20 credits)
With or without research option

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL6900 Biology Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>BIOL6901 Biology Seminar II</td>
<td>1</td>
</tr>
</tbody>
</table>

Graduate Biology Courses (18 credits)
Choose from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL5306 Immunology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6240, BIOL6241 Molecular Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL6705 Advances in Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6719 Developmental Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6725 Human Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6728 Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6733 Enzymology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6761 Advances in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6771 Behavioral Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6775 Physiological Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL6843, BIOL6846 Molecular Biology Techniques (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL7803 Research and Thesis I</td>
<td>2</td>
</tr>
<tr>
<td>BIOL7804 Research and Thesis II</td>
<td>2</td>
</tr>
<tr>
<td>BIOL7810 Selected Studies in Biology</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for the Master of Science Degree

1. Satisfactory completion of a minimum of 32 credits in the courses approved for a graduate major in biology. A minimum of 20 credits must be taken in biological sciences, selected from the courses described on pages 57–59. A maximum of 6 credits may be transferred from another institution with the permission of the school director if these credits are not part of an existing master's degree. In addition, courses may be taken in other colleges and campuses of the University, with the director's permission.
2. Before a student may register beyond 9 credits, he or she is required to select a biology adviser. The adviser will help the student select courses most appropriate for the student's needs and interests. Ideally, the student will select a faculty member in the area of interest most closely paralleling his or her own. This faculty member also may serve as the student's mentor.
3. Students have the option of completing their degrees with or without a research option. Students electing to do the research and thesis option must take BIOL7803, BIOL7804 Research and Thesis I, II, 2 credits each semester.
4. BIOL6900 Biology Seminar I and BIOL6901 Biology Seminar II are required 1-credit courses and must be taken in the fall and spring semesters.
Elective Courses (12 credits)

Elective courses must be approved by the student’s School of Natural Sciences’ graduate adviser.

These courses may include additional graduate biology courses or independent studies that will fulfill a student’s specific needs.

Undergraduate Students

Senior undergraduate students with a 3.00 grade point ratio (GPR) may take graduate courses for undergraduate credit with permission of the instructor.

Curriculum Requirements

Same as for the Master of Science degree in biology (see pages 56–57), but including 12 credits of business courses taken as a unit concentration. Courses may not be selected at random from the three areas of concentration. An adviser from the Silberman College of Business should be consulted for additional courses.

Business Concentration

The students have a choice of six courses for 2 credits each in accounting, economics, law, management, marketing and entrepreneurship.

ACCT5012

Financial Accounting: End-User Applications.........................................2

ACCT6012

Managerial Accounting Applications.......................................................2

ECON5012

Economic Analysis...................................................................................2

ECON6012

Managerial Economics............................................................................2

ENTR6012

Entrepreneurship and Innovation............................................................2

LAW6012

Society, Ethics and the Legal Environment of Business............................2

LAW6657

Applied Business Law..............................................................................2

MGMT5012

Foundations of Management................................................................2

MGMT6012

Organizational Behavior and Leadership..............................................2

MGMT6621

Strategic Human Resource Management............................................2

MKTG5012

Marketing Principles...............................................................................2

MKTG6012

Strategic Marketing................................................................................2

MKTG6112

Social Media Strategy..............................................................................2

The above listed elective courses have been approved by the graduate adviser and director of the business concentration for the Master of Science in biology degree.

The 5000-level courses are prerequisites for the 6000-level courses and must be completed with a minimum grade of C.

Elective Concentration Courses

Elective courses (12 credits) must be approved by the student’s School of Natural Sciences graduate adviser and director of the intended concentration.

These courses may include additional graduate biology courses, independent studies or other graduate courses that will fulfill a student’s specific needs.

For Information

For more information contact Dr. Marion McClary, professor of biological sciences and co-director, School of Natural Sciences, at (201) 692-2606 or mcclary@fdlu.edu.

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.

Biological Sciences

School of Natural Sciences

BIOL5306

3 Credits

Immunology

Study of the structure and function of the molecular and cellular components of the immune system, genetic bases of immune responses, normal and pathological responses, tumor immunology, transplantation and immunological techniques. Open to qualified undergraduates with permission of instructor or adviser.

BIOL6240

4 Credits

Molecular Cell Biology

Modern cell biology investigates the central concept for cellular functioning — DNA to RNA to protein — by integrating biomolecules, biotechnology, regulating mechanisms, signals and signaling pathways and aberrations that result in pathology, such as cancer. Corequisite: BIOL6241 Laboratory: Molecular Cell Biology.

BIOL6241

0 Credits

Laboratory: Molecular Cell Biology

The laboratory encompasses sequential experiments using tissue culture: cell toxicity; apoptosis; oxidative stress; immunocytochemistry; ELISA (enzyme-linked immunosorbent assay), SiRNA (small interfering RNA) or promoter-reporter transfection, mRNA isolation, polymerase chain reaction, gel electrophoresis, Northern blotting. Corequisite: BIOL6240 Molecular Cell Biology.

BIOL6632

3 Credits

Selected Studies in Biology

Recent developments in special fields of biology.

BIOL6661

2 Credits

Lab: Advanced Microbiology

Experiments illustrating topics discussed in BIOL6761 Advanced Microbiology. Corequisite: BIOL6761 Advanced Microbiology.

BIOL6700

3 Credits

Advanced Biotechnology

Molecular biotechnology encompasses the principles and applications of recombinant DNA technology in the production of commercial products such as ascorbate, antibodies, vaccines, growth factors, cytokines, nucleic acids, drugs, crops, livestock; the diagnosis of genetic diseases or infections with nucleic acids, immunological or biological probes/systems that are mostly PCR based; the analysis of information through bioinformatics, genomics and proteomics; and protein or nucleic-acid therapy with agents such as enzymes, aptamers or interfering nucleic acids.

BIOL6705

3 Credits

Advances in Cell Biology

Molecular organization of cells. Internal membranes and synthesis of macromolecules. The cell nucleus and cell division. Control of cell cycle. Cytoskeleton and cell-cell adhesion. The extra cellular matrix and signal transduction. Fall, Spring

BIOL6719

3 Credits

Developmental Genetics

This course introduces methods of current genetic and genomic analysis to understand the molecular mechanisms of development and regulation of genes in embryonic development. Lectures are based on developmental biology textbook and scientific literature on model organisms.
**Biology**

**BIOL6724**
3 Credits

**Human Genetics**

*Fall*

**BIOL6725**
3 Credits

**Human Evolution**
Evolutionary biology of human species. History of hominid lineage and how evolutionary pressures explain physical and behavioral adaptations to past and present environments. Modern human genetic diversity and its relevance to biomedical research. Prior course work in evolution is required.

*Spring*

**BIOL6728**
3 Credits

**Bioethics**
Studies relating implications of biotechnological and biomedical innovations, individual perception of issues and the universal policies influencing the state of living species.

*Summer*

**BIOL6733**
3 Credits

**Enzymology**
Enzyme sources and purification, structure, kinetics and mechanisms. Sequencing and characterization, biocatalysis, control of enzyme activity, clinical aspects of enzymology and applications in biotechnology. Use of protein data banks and molecular modeling.

*Spring*

**BIOL6740**
3 Credits

**Molecular Endocrinology**
The course comprises of the biochemistry and molecular biology of hormone action: synthesis, secretion, release, regulation, metabolism, receptors, signal transduction, gene expression and the cellular effects of insulin, glucagon, catecholamines, glucocorticoids, growth hormone, growth factors, thyroxine, parathyroid hormone, calcitonin, gonadotropins, ovarian steroids, androgens, aldosterone, vasopressin; and hormone imbalance and effects in aging, malignancy and disease.

**BIOL6745**
3 Credits

**Topics in Bioinformatics**
Current biological research using mega amounts of data provided by microarrays, crystallographic, sequencing and other techniques. Topics explore such data and some of the analysis methods available online focusing primarily on the DNA chips used for transcriptional profiling. Corequisite: BIOL6744 Lab: Topics in Bioinformatics.

**BIOL6747**
3 Credits

**Biotechniques**
Current biotechnology techniques, including DNA cloning, gene regulation and protein expression/activity, using in-vitro models such as prokaryotic and eukaryotic cells or tissue-equivalents. Corequisite: BIOL6748 Lab: Biotechniques.

**BIOL6748**
0 Credits

**Lab: Biotechniques**
Experiments illustrating the topics discussed in BIOL6747 Biotechniques. Corequisite: BIOL6747 Biotechniques.

**BIOL6756**
3 Credits

**Dermal Pharmacology and Immunology**
Skin structure, function and immunology and their impact on the application and efficacy of cosmetic products. Pharmacological principles such as pharmacokinetics and pharmacodynamics are reviewed. The importance of skin safety testing.

*Spring*

**BIOL6758**
3 Credits

**Advances in Pharmacology**

**BIOL6760**
3 Credits

**Virology**
Virus morphology and chemical composition, transmission and dynamics of infection, virus entry, virus assembly and virus vectors. Recent discoveries in molecular biology, pathogenesis and medical aspects of viruses.

**BIOL6761**
3 Credits

**Advanced Microbiology**
Organization of physiological processes in microorganisms, including structure, energy-yielding mechanisms, macromolecular biosynthesis, growth and regulation. Prerequisite: undergraduate organic chemistry and microbiology.

*Spring*

**BIOL6771**
3 Credits

**Behavioral Ecology**
Behavioral ecology, conservative biology, mate choice, dispersal, reserve design, genetic diversity, subsistence harvesting and hunting. Note: FDU NetID (formerly Webmail) account required. Fully online course.

*Summer*

**BIOL6772**
3 Credits

**Ecotoxicology**
Principles and methods of biological testing for toxicity of effluents and receiving waters. Principles of cost-efficient compliance with toxicity limits placed on discharges.

*Fall*

**BIOL6775**
3 Credits

**Physiological Ecology**
Discussion of current topics addressing physiological adjustment of animals to the physical and chemical environment, tolerance of temperature, osmotic conditions, partial pressures of oxygen and starvation. Lecture and seminar. Note: FDU NetID (formerly Webmail) account required. Fully online course.

*Summer*

**BIOL6776**
4 Credits

**Advances in Ecology**
Interrelationships of biotic and abiotic components of the environment. Ecological energetics, population dynamics, distribution patterns, environmental imbalances and community succession will be studied. Corequisite: BIOL6777 Lab: Advances in Ecology.

*Fall*

**BIOL6777**
0 Credits

**Lab: Advances in Ecology**
Experiments illustrating the topics discussed in BIOL6776 Advances in Ecology. Corequisite: BIOL6776 Advances in Ecology.

*Fall*

**BIOL6779**
3 Credits

**Darwinian Medicine**
Application of Darwinian reasoning to medical research and clinical practice. Intrinsic biological aging, pathology due to defense mechanisms, acute and stealth infection, novel environments, genetic diversity, design compromises and evolutionary legacies. Prior course work in evolution is required.

*Spring*
BIOL6840
3 Credits
**Cell Culture**
Biology, characteristics and requirements of cells in culture. Aseptic cell culture methods and applications of the techniques to specific types of cell lines. Evaluation of cultured cell function. Scale-up of cell cultures. Cell-based assays and drug discovery. Applications in recombinant DNA technology.
Fall

BIOL6845
4 Credits
3 Contact hours
**Molecular Biology Techniques**
Classic and current biotechniques to include handling numbers, weighing and solution preparation, experimental design, spectrophotometry, chromatography, enzyme kinetics/inhibition, assays for reactive organ species, cell culture, agarose and polyacrylamide gel electrophoresis, Southern and Western blotting, cloning, eukaryotic cells, polymerase chain reaction (PCR) and real time. Corequisite: BIOL6846 Lab: Molecular Biology Techniques.

BIOL6846
0 Credits
**Lab: Molecular Biology Techniques**
Experiments illustrate the topics discussed in BIOL6845 Molecular Biology Techniques. Corequisite: BIOL6845 Molecular Biology Techniques.

BIOL6888
3 Credits
**Physiology of Disease**
The study of the physiological and biological manifestations of disease. Provides a basis as to how alterations in structure and function disrupt the human body as a whole. Prerequisites: BIOL3357 Human Structure and Function II and BIOL3358 Laboratory: Human Structure and Function II. Note: FDU NetID (formerly Webmail) account required. Fully online course.

BIOL6890
3 Credits
**Neuroscience**
The organization and function of the human nervous system including the molecular, cellular systems, behavioral and cognitive levels of analysis. Note: FDU NetID (formerly Webmail) account required. Fully online course.

BIOL6892
3 Credits
**Human Physiology**
Molecular, cellular and systems physiology of the nervous, muscular, cardiovascular, respiratory, urinary, immune, endocrine and reproductive systems. Note: FDU NetID (formerly Webmail) account required. Fully online course.

BIOL6900, BIOL6901
1 Credit Each Semester
**Biology Seminar**
A series of lectures by invited speakers on topics of current interest. Exposure of students to research developments and techniques in selected areas of specialization.

BIOL7803, BIOL7804
2 Credits Each Semester
**Research and Thesis I, II**
The student is required to write and then defend before a faculty committee a thesis based on laboratory research and prepared under the supervision of a faculty member.
Fall, Spring

BIOL7810
3 Credits
**Selected Studies in Biology**
As student interest requires, courses in highly specialized topics may be offered.
Fall, Winter session, Spring

BIOL8000
1 Credit
**Curricular Practical Training**
A Curricular Practical Training (CPT) requirement for work-experience course/independent study registration in most academic programs at FDU. The training experience is integral to the course and the detailed course objectives will be on a separate independent study proposal form. The student’s work or training experience will be: part-time (20 hours or less per week) or full-time (more than 20 hours per week). A non-letter grade of P for Pass or NC for No Credit will be applied to degree audit as this course will be excess credit and not counted toward a degree requirement.

ENVR6552
3 Credits
**Environmental Risk Assessment**
This course describes the scientific basis for the steps in the risk-assessment processes and discusses current guidelines and procedures for performing them.
Business

Programs
Master of Business Administration (M.B.A.) (Specializations)
  Accounting
  See page 62.
  Business Administration
  See page 62.
  Finance
  See page 63.
  International Business
  See page 63.
  Management
  See page 63.
  Marketing
  See page 64.
Pharmaceutical Management Studies
See page 64.
Post M.B.A. Graduate Certificate Program
See page 65.

Master of Business Administration (M.B.A.) — Saturday M.B.A.
See page 66.

Master of Business Administration (M.B.A.) — Management for Executives
See page 67.
  General Management
  See page 68.
  Health Sector Management Specialization
  See page 68.

Master of Science (M.S.) — Accounting
See page 69.

Master of Science (M.S.) — Digital Marketing
See page 70.

Master of Science (M.S.) — Supply Chain Management
See page 70.

Master of Science (M.S.) — Taxation
See page 71.

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business. AACSB is the premier business school accrediting body.

The College of Business offers programs leading to the degrees of Master of Business Administration (M.B.A.) and Master of Science in taxation (M.S.), Master of Science in accounting (M.S.), Master of Science (M.S.) in digital marketing and Master of Science in supply chain management (M.S.). Courses for the M.B.A. and M.S. degrees are scheduled during the evening and on Saturdays. Some courses are offered during the day. Courses for the M.S. in digital marketing are fully online. Programs may be pursued either on a full-time basis or part-time basis.

Admission Requirements
All students who wish to enroll for graduate course work within the Silberman College of Business must apply for admission as matriculated students. All students must meet the requirements for graduate status or receive special permission from the M.B.A. Office. Check the specific requirements for the program in which you are interested.

Academic Regulations
In addition to the academic regulations found elsewhere in this bulletin, the following regulations apply to all College of Business students.

1. Cumulative Grade Point Ratio
A cumulative grade point ratio of 3.00 is required for graduation from the graduate programs of the College of Business.

2. Graduation Requirements
To be eligible for graduation, students must be matriculated, must have completed a minimum of 30 nonwaivable credits in the M.B.A. and a minimum of 24 nonwaivable credits in the M.S. program, must have completed all required courses in the program and must have a cumulative grade point ratio of 3.00 or better. Core courses cannot be waived.

3. Incompletes
The grade of I must be removed by the third week of the next full semester (excluding summer sessions). An Incomplete that is not removed within this period is automatically changed to an F. In case of well-documented extenuating circumstances, an instructor and a student may jointly petition the dean for additional time in which to complete the course work. Such petitions must be submitted within the same period. The grade of I cannot be removed by registering for the course at Fairleigh Dickinson University or by taking its equivalent elsewhere.

4. Matriculation Status
At least 80 percent of each student’s nonwaivable credits must be completed at Fairleigh Dickinson University.

5. Residency Requirement
Matriculated students must maintain residency with the University during the period of time required to complete the course work required for the graduate degree. Residence means that students must be enrolled in the fall and spring semesters. Summers are not counted in the residency requirement. In addition, a total of 30 nonwaivable credits must be completed in residency. A student who fails to enroll in a fall or spring semester without filing an approved leave of absence is considered to have broken residency and must apply for readmission. In this case, all rules and regulations effective at the time that the student applies for readmission are applicable to the student. M.B.A./M.S. students are permitted two one-semester leaves of absence. The total time permitted to complete the degree is seven calendar years, excluding leaves of absence. Any extension may be granted only under extenuating circumstances and only by the M.B.A./M.S. program director.

6. Second M.B.A.
Award of a second M.B.A. is not permitted; however, students with an M.B.A. degree may receive certification in a second specialization upon completion of required and elected credits for that specialization. Students seeking a second area of specialization should consult with the M.B.A. program director. A 3.00 grade point ratio is required. Contact the respective M.B.A. advisers at the Metropolitan Campus, (201) 692-2424; and at the Florham Campus, (973) 445-8800.

7. Scholarly Requirements
Grades for graduate work may be found in the academic regulations section in the front of this bulletin.

An average of 3.00 or better is required for graduation. A graduate student who receives a grade of F is required to present cause for consideration by the M.B.A. program director (in the case of non-M.B.A. students the program’s director) as to why continued studies should be permitted. Documentation must be presented and approved before commencement of the next semester or the student will not be allowed to continue the graduate program.

A graduate student receiving the grade of F in a required course must repeat the
course and achieve at least a grade of B. (Such a retake does not expunge the grade of F and it remains part of the student’s records.) Should this level of performance not be attained, the student will be denied further registration.

8. Probation, Suspension and Dismissal

A student who completes 9 or more credits with a cumulative grade point ratio (CGPR) of less than 3.00 will be placed on academic probation. If at the completion of an additional 9 credits the CGPR is still below 3.00, the student will be subject to suspension or dismissal. This decision will be based on the student’s overall academic performance and the student’s likelihood of obtaining the minimum CGPR of 3.00 needed for graduation. Subsequently, if the student is allowed to continue his or her studies, the student’s records will be reviewed each semester in which the CGPR remains below 3.00. The student will either be dismissed or be subject to credit limitations and minimum grade point requirements in order to be permitted to continue his or her studies.

Please Note: A student who is suspended has a right to apply for readmission after the lapse of one 15-week semester, not including the summer sessions. To be readmitted, a student must submit evidence to the M.B.A. program director of the student’s likelihood of successfully completing all remaining degree requirements.

A student who has been dismissed may not apply for readmission. The student is dropped from the University (full-time and part-time programs).

9. Transfer Credit

A maximum of 6 nonwaivable credits of graduate course work required for a degree may be approved for transfer from another AACSB-accredited college or university under the following conditions: the course work must be approved as part of the student’s program of study; it must not have been applied to the completion of the requirements for another degree; it must have been taken at the graduate level; it must have been taken within the past five years; and the student must have received a grade of B or better. Approval of transfer credit will be made by petition to the department chairperson for the course in question. A transcript of the course work must be on file before the petition can be considered.

Master of Business Administration (M.B.A.)

General Programs

Fairleigh Dickinson University’s Silberman College of Business offers an M.B.A. program accredited by both the AACSB International - Association to Advance Collegiate Schools of Business and the Middle States Commission on Higher Education.* A graduate student in the Silberman College of Business currently earns an M.B.A. by completing 42 credits of course work.

Admission Requirements

Complete credentials for the evaluation of applicants for the M.B.A. degree program include the following:

1. A four-year bachelor’s degree from an accredited or government-recognized college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.
3. An official score report for the Graduate Management Admission Test (GMAT)/Graduate Record Examinations (GRE). FDU undergraduates with exemplary grade point ratios are eligible to waive the GMAT/GRE requirement. Contact the Office of Graduate Admissions for information.
5. A minimum score of 350 (paper-based) or 213 (computer-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.

Requirements for the Master of Business Administration Degree

The M.B.A. program consists of 42 credits. In addition to the requirements set forth by each specialization (10 of 42 credits) and the capstone course (2 of 42 credits), all students must complete a set of foundation courses (12 credits) and the M.B.A. core module (18 credits) that includes the following courses:

*3624 Market Street, Philadelphia, Pa. 19104-2680; telephone: (267) 284-3000.
Accounting (M.B.A.)

Students interested in seeking a specialization in accounting are recommended to schedule an appointment with the department chair if they are interested in the requirements for the CPA exam in New Jersey. Due to the variations in the requirements specified by each state, the department chair will best be able to determine the requirements a student must satisfy for being eligible to appear for the exam. To schedule an appointment contact department chair, accounting, tax and law.

This specialization is offered under the auspices of the department of accounting, taxation and law, Silberman College of Business, Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

Specialization Requirements

Specialization requirements consist of a total of 10 credits of required courses.

In addition to the College’s requirements for the Master of Business Administration degree (see page 61), students must complete the specialization requirements specific to their majors.

Required Courses (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT6630</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT6635</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective (4 credits)

Choose from the following:

- ACCT6605  Federal Tax I: Individual  3
- ACCT6617  Cost: Measurement, Planning and Control  3
- ACCT6618  Auditing Concepts and Methods  3
- ACCT6640  Advanced Financial Accounting  3
- ACCT6800  Graduate Independent Study*  1–3

For up-to-date course information go to http://view2.fdu.edu/academics/silberman-college/graduate/mba/business-administration/mba/.

Business Administration (M.B.A.)

M.B.A. students who do not wish to specialize in a specific discipline may customize their education by choosing any five graduate courses offered by the Silberman College of Business that meet their specific career goals and interests.

All students interested in the business administration M.B.A. degree must still complete the M.B.A. foundation courses (unless they receive waivers in any of these courses), the M.B.A. Core courses, as well as the capstone requirement (either ENTR7012 Entrepreneurship Capstone or MGMT7012 Global Business Capstone). However, students may fulfill their elective requirements with a mix of five graduate courses offered by any of the five departments within Silberman College of Business, Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey (subject to course availability).

For current course information visit view2.fdu.edu/academics/silberman-college/graduate/mba/business-administration/mba/.

Course Descriptions

See “Course Offerings,” pages 72–84.

*In lieu of a one-credit Graduate Independent Study course needed to complete 10 credits of required accounting courses, students may substitute ACCT6617 Cost: Measurement, Planning and Control, which is a 3-credit course, or ACCT6012 Managerial Accounting Applications, which is a 2-credit course.
Finance (M.B.A.)
This specialization is offered under the auspices of the department of economics, finance and international business, Silberman College of Business, Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

Specialization Requirements
In addition to the College’s requirements for the Master of Business Administration degree (see page 61), students must complete the specialization requirements listed below.

Required Courses (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN6701</td>
<td>Strategic Financial Decisions</td>
<td>2</td>
</tr>
<tr>
<td>FIN6721</td>
<td>Financial Markets and Investments</td>
<td>2</td>
</tr>
<tr>
<td>FIN6731</td>
<td>Portfolio Management</td>
<td>2</td>
</tr>
</tbody>
</table>

Electives* (4 credits)
Choose two from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN6742</td>
<td>Global Finance</td>
<td>2</td>
</tr>
<tr>
<td>FIN6751</td>
<td>Mergers and Acquisitions</td>
<td>2</td>
</tr>
<tr>
<td>FIN6800</td>
<td>Graduate Independent Study</td>
<td>1–2</td>
</tr>
<tr>
<td>FIN6801</td>
<td>Seminar in Corporate Finance</td>
<td>2</td>
</tr>
</tbody>
</table>

For current course information visit [http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-finance/](http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-finance/).

Course Descriptions
See “Course Offerings,” pages 72–84.

International Business (M.B.A.)
Rewarding careers for international business specialists exist in global corporate operations, international financial services, national and international government agencies, travel and leisure and transportation and banking, just to name a few.

The M.B.A. with a specialization in international business is offered under the auspices of the department of economics, finance and international business, Silberman College of Business, at the Metropolitan Campus, Teaneck, New Jersey.

Specialization Requirements
In addition to the College’s requirements for the Master of Business Administration degree, general programs (see page 61), students must complete the specialization requirements listed below.

Required Courses (4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS6012</td>
<td>International Business Concepts</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6020</td>
<td>Economics of International Trade</td>
<td>2</td>
</tr>
</tbody>
</table>

Electives (6 credits)
Choose three from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS6072</td>
<td>International Management</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6706</td>
<td>International Marketing</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6742</td>
<td>Global Finance</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6800</td>
<td>Graduate Independent Study</td>
<td>1–2</td>
</tr>
</tbody>
</table>

For current course information visit [http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-international-business/](http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-international-business/).

Course Descriptions
See “Course Offerings,” pages 72–84.

Management (M.B.A.)
The M.B.A. with a specialization in management program is for professionals seeking to improve their skills in managing people and organizational systems. It is designed to build skills in leadership, team building and motivation of the workforce.

The program builds knowledge of how business strategy affects organizational interaction with the marketplace and how to structure the workplace to enhance organizational growth and productivity.

This program is offered under the auspices of the department of management and entrepreneurship, Silberman College of Business, at the Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

Specialization Requirements*
In addition to the College’s requirements for a Master of Business Administration degree, general programs (see page 61), students must complete the specialization requirements listed below.

Required Courses (8 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT6112</td>
<td>Managing Sustainability in a Global Environment</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6621</td>
<td>Strategic Human Resource Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6633</td>
<td>Leadership and Change Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6640</td>
<td>Leadership Development Project</td>
<td>2</td>
</tr>
</tbody>
</table>

Elective (2 credits)
Choose one from the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT6625</td>
<td>Managing a Healthy Workforce</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6700</td>
<td>Negotiation and Conflict Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6800</td>
<td>Graduate Independent Study</td>
<td>1–2</td>
</tr>
</tbody>
</table>

For current course information visit [http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-management/](http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-management/).

Course Descriptions
See “Course Offerings,” pages 72–84.

*Other elective courses in finance will be added to this list for satisfying this requirement.

*Students specializing in management are required to take MGMT7012 Global Business Capstone as their capstone course.
**Marketing (M.B.A.)**

The marketing specialization curriculum prepares students with a solid foundation in the fundamentals of marketing strategy, consumer behavior and marketing research. Students build on this foundation by selecting from a number of marketing electives in specialized areas. The selection of electives is typically driven by the career goals of the students and include areas such as advertising, sales and promotions.

This specialization is offered under the auspices of the department of marketing, information systems and decision sciences, Silberman College of Business, at the Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

**Specialization Requirements**

In addition to the College’s requirements for the Master of Business Administration degree (see page 61), students must complete the specialization requirements listed below.

**Required Courses (4 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG6602 Marketing Research</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6603 Consumer Behavior</td>
<td>2</td>
</tr>
</tbody>
</table>

**Electives (6 credits)**

Choose three courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG6111 Digital Marketing Strategies*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6112 Social Media Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6113 Mobile Marketing Strategies*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6605 Marketing Communications</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6800 Graduate Independent Study</td>
<td>1–2</td>
</tr>
</tbody>
</table>

For current course information visit http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-marketing/.

**Course Descriptions**

See “Course Offerings,” pages 72–84.

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**Pharmaceutical Management Studies (M.B.A.)**

The M.B.A. with a specialization in pharmaceutical management program has two objectives: 1) to prepare employees for greater management responsibilities in a challenging world and 2) to enhance the competitive position of pharmaceutical companies in global markets.

The program achieves these objectives by providing talented, motivated students with a thorough grounding in the principles of business management, coupled with training in subjects and skills of specific value to those working in these technology-intensive and heavily regulated pharmaceutical companies.

The program is sufficiently flexible to accommodate students of varied educational and industrial backgrounds. Past and present participants include men and women whose positions run the gamut from entry level to the executive suite, from production, research, finance and accounting to sales and marketing. Their educational backgrounds vary from undergraduate majors in liberal arts, science, engineering and business to earned master’s and doctoral degrees.

This specialization is offered under the auspices of the department of management and entrepreneurship, Silberman College of Business, at the Florham Campus, Madison, New Jersey.

**Specialization Requirements**

In addition to the College’s requirements for the Master of Business Administration degree (see page 61), students must complete the specialization requirements listed below.

**Required Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR6640 Management of Research and Technology in the Pharmaceutical Industry</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6650 Management of Production, Purchasing and Quality Control in the Pharmaceutical Industry</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6680 Structure, Regulation and Strategy of the Pharmaceutical Industry</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6800 Graduate Independent Study</td>
<td>1–2</td>
</tr>
</tbody>
</table>

For current course information visit http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-pharmaceutical-management/.

**Course Descriptions**

See “Course Offerings,” pages 72–84.

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*Distance learning course.*
Post-M.B.A. Graduate Certificate Program

The Post-M.B.A. Graduate Certificate Program was developed to meet the needs of M.B.A. graduates who, after receiving their degrees, find themselves working in environments that require a continuation of their education. Through promotion, employment with new companies, relocation or otherwise, M.B.A. degree holders often find themselves working in areas for which they were not originally trained. Other graduates realize the necessity of keeping current with a business environment that is rapidly changing. Courses are offered both in the evenings and on Saturdays.

Admission Requirements
To qualify for the Post-M.B.A. Graduate Certificate Program, applicants must have received an M.B.A. or a specialized master's degree in a business-related field from an accredited college or university.

Students are not required to submit Graduate Management Admission Test (GMAT) scores.

Requirements for the Post-M.B.A. Certificate
Students may choose courses from one of the following M.B.A. study areas:

- Accounting
- Finance
- International Business
- Management
- Marketing
- Pharmaceutical Management

To qualify for the certificate, students must have at least a 3.00 cumulative grade point ratio.

Accounting Graduate Certificate
For a Certificate in Accounting, students must complete the following five courses (15 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT5012</td>
<td></td>
</tr>
<tr>
<td>Financial Accounting: End-User Applications*</td>
<td>2</td>
</tr>
<tr>
<td>ACCT6012</td>
<td></td>
</tr>
<tr>
<td>Managerial Accounting Applications</td>
<td>2</td>
</tr>
</tbody>
</table>

*Can be completed as part of the M.B.A. curriculum.

Finance Graduate Certificate
For a Certificate in Finance, students must complete the following six courses (12 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON6012</td>
<td></td>
</tr>
<tr>
<td>Managerial Economics*</td>
<td>2</td>
</tr>
<tr>
<td>FIN5012</td>
<td></td>
</tr>
<tr>
<td>Principles of Finance*</td>
<td>2</td>
</tr>
<tr>
<td>FIN6012</td>
<td></td>
</tr>
<tr>
<td>Corporate Finance*</td>
<td>2</td>
</tr>
<tr>
<td>FIN6701</td>
<td></td>
</tr>
<tr>
<td>Strategic Financial Decisions</td>
<td>2</td>
</tr>
<tr>
<td>FIN6721</td>
<td></td>
</tr>
<tr>
<td>Financial Markets and Investments</td>
<td>2</td>
</tr>
<tr>
<td>FIN6751</td>
<td></td>
</tr>
<tr>
<td>Portfolio Management</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition students will be required to complete any three courses (6 credits) from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN6112</td>
<td></td>
</tr>
<tr>
<td>Finance Decisions for a Sustainable Enterprise</td>
<td>2</td>
</tr>
<tr>
<td>FIN6742</td>
<td></td>
</tr>
<tr>
<td>Global Finance</td>
<td>2</td>
</tr>
<tr>
<td>FIN6751</td>
<td></td>
</tr>
<tr>
<td>Mergers and Acquisitions</td>
<td>2</td>
</tr>
<tr>
<td>FIN6800</td>
<td></td>
</tr>
<tr>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
<tr>
<td>FIN6801</td>
<td></td>
</tr>
<tr>
<td>Seminar in Corporate Finance</td>
<td>2</td>
</tr>
</tbody>
</table>

International Business Graduate Certificate (at Metropolitan Campus only)
For a Certificate in International Business, students must complete the following five courses (10 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS5012</td>
<td></td>
</tr>
<tr>
<td>Economic Analysis*</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6012</td>
<td></td>
</tr>
<tr>
<td>Managerial Economics*</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6020</td>
<td></td>
</tr>
<tr>
<td>Economics of International Trade</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td></td>
</tr>
<tr>
<td>Marketing Principles*</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition students have to complete any four courses (8 credits) from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS6072</td>
<td></td>
</tr>
<tr>
<td>International Management</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6706</td>
<td></td>
</tr>
<tr>
<td>International Marketing</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6742</td>
<td></td>
</tr>
<tr>
<td>Global Finance</td>
<td>2</td>
</tr>
<tr>
<td>IBUS6800</td>
<td></td>
</tr>
<tr>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>

Management Graduate Certificate
For a Certificate in Management, students must complete the following seven courses (14 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT5012</td>
<td></td>
</tr>
<tr>
<td>Foundations of Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6012</td>
<td></td>
</tr>
<tr>
<td>Organizational Behavior and Leadership*</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6112</td>
<td></td>
</tr>
<tr>
<td>Managing Sustainability in a Global Environment</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6621</td>
<td></td>
</tr>
<tr>
<td>Strategic Human Resource Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6633</td>
<td></td>
</tr>
<tr>
<td>Leadership and Change Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6640</td>
<td></td>
</tr>
<tr>
<td>Leadership Development Project</td>
<td>2</td>
</tr>
<tr>
<td>MGMT7012</td>
<td></td>
</tr>
<tr>
<td>Global Business Capstone*</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition students have to complete any two courses (4 credits) from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT6625</td>
<td></td>
</tr>
<tr>
<td>Managing a Healthy Workforce</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6700</td>
<td></td>
</tr>
<tr>
<td>Negotiation and Conflict Management</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6800</td>
<td></td>
</tr>
<tr>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>
### Distance Learning Course

**Marketing Graduate Certificate**
For a Certificate in Marketing, students must complete the following five courses (10 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR6012</td>
<td>Entrepreneurship and Innovation*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td>Marketing Principles*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6012</td>
<td>Strategic Marketing*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6602</td>
<td>Marketing Research</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6603</td>
<td>Consumer Behavior</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition, students have to complete any four courses (8 credits) from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR6112</td>
<td>Strategic Innovation Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6111</td>
<td>Digital Marketing Strategies**</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6112</td>
<td>Social Media Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6605</td>
<td>Mobile Marketing Strategies**</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6800</td>
<td>Marketing Communications</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>

### Pharmaceutical Management Graduate Certificate
For a Certificate in Pharmaceutical Management, students must complete the following five courses (12 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON5012</td>
<td>Economic Analysis*</td>
<td>2</td>
</tr>
<tr>
<td>MGM5150</td>
<td>Foundations of Management*</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td>Marketing Principles*</td>
<td>2</td>
</tr>
<tr>
<td>DSCI6012</td>
<td>Operations Management*</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6601</td>
<td>Health Care Systems and Policy</td>
<td>3</td>
</tr>
<tr>
<td>PHAR6602</td>
<td>Managing the Value Proposition</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition, students have to complete any three courses (6 credits) from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR6615</td>
<td>Pharmaceutical Marketing and Product Development**</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6640</td>
<td>Management of Research and Technology in the Pharmaceutical Industry**</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6650</td>
<td>Management of Production, Purchasing and Quality Control in the Pharmaceutical Industry***</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6680</td>
<td>Structure, Regulation and Strategy of the Pharmaceutical Industry**</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6800</td>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>

### Master of Business Administration (M.B.A.) — Saturday M.B.A.

The Saturday M.B.A. program is designed for the business professional. The curriculum is designed using a blended pedagogical model that comprises both in-class sessions with online interactions. Courses are delivered in eight-week modules, where students are required to attend in-class sessions every other Saturday (on the average). The other sessions are completed online. Students complete the program as a cohort, and this design enables them to balance work, personal and class commitments and achieve their career goals. Students can earn their M.B.A. within a 21-month period while continuing to meet their full-time responsibilities at work.

The program consists of 21 courses, each comprising 2 credits, for a total of 42 credits. The in-class sessions (every other Saturday) are scheduled between 8:30 a.m. and 5 p.m. Program cohorts are established twice a year, in the spring semester (January start), as well as in the fall semester (August start). Students may apply for the fall cohort as late as the second week of August and for the spring cohort as late as the second week of January.

### Admission Requirements

1. A four-year bachelor’s degree from an accredited or government-recognized college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work completed.
3. An official score report for the Graduate Management Admissions Test (GMAT). Students who have taken the Graduate Record Examinations (GRE) may submit their GRE score in lieu of a GMAT score. FDUs undergraduates with exemplary grade point ratios are eligible to waive the GMAT/GRE requirement. Contact the Office of Graduate Admissions for information.
5. A minimum score of 550 (paper-based), 213 (computer-based) or 79 (internet-based) on the Test of English as a For-

---
*Can be completed as part of the M.B.A. curriculum.
** Must take MKTG5012 Marketing Principles.
***Must take DSCI6012 Operations Management.
eign Language (TOEFL) is required for all applicants whose native language is not English.

Requirements for the Master of Business Administration Degree

Foundation Courses (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT5012</td>
<td>Financial Accounting: End-User Applications</td>
<td>2</td>
</tr>
<tr>
<td>DSCI5012</td>
<td>Statistical Data Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ECON5012</td>
<td>Economic Analysis</td>
<td>2</td>
</tr>
<tr>
<td>FIN5012</td>
<td>Principles of Finance</td>
<td>2</td>
</tr>
<tr>
<td>MGMT5012</td>
<td>Foundations of Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td>Marketing Principles</td>
<td>2</td>
</tr>
</tbody>
</table>

Core Courses (20 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT6012</td>
<td>Managerial Accounting Applications</td>
<td>2</td>
</tr>
<tr>
<td>DSCI6012</td>
<td>Operations Management</td>
<td>2</td>
</tr>
<tr>
<td>ECON6012</td>
<td>Managerial Economics</td>
<td>2</td>
</tr>
<tr>
<td>ENTR6012</td>
<td>Entrepreneurship and Innovation</td>
<td>2</td>
</tr>
<tr>
<td>FIN6012</td>
<td>Corporate Finance</td>
<td>2</td>
</tr>
<tr>
<td>LAW6012</td>
<td>Society, Ethics and Legal Environment</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6012</td>
<td>Organizational Behavior and Leadership</td>
<td>2</td>
</tr>
<tr>
<td>MGMT7012</td>
<td>Global Business Capstone</td>
<td></td>
</tr>
<tr>
<td>ENTR7012</td>
<td>Entrepreneurship Capstone</td>
<td>2</td>
</tr>
<tr>
<td>MIS6012</td>
<td>Information Systems for Managers</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6012</td>
<td>Strategic Marketing</td>
<td>2</td>
</tr>
</tbody>
</table>

Discipline-enrichment Courses

These courses are intended to enhance the content covered in the core courses by identifying a few specialized business topics that are of contemporary relevance and interest. Students have to complete five such courses, each worth 2 credits.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI6112</td>
<td>Project Management</td>
<td>2</td>
</tr>
<tr>
<td>ENTR6112</td>
<td>Strategic Innovation Management</td>
<td>2</td>
</tr>
<tr>
<td>FIN6112</td>
<td>Financial Decisions for Sustainable Enterprise</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6112</td>
<td>Managing Sustainability in a Global Environment</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6112</td>
<td>Social Media Strategy</td>
<td>2</td>
</tr>
</tbody>
</table>

Master of Business Administration (M.B.A.) — Management for Executives

The M.B.A. — Management for Executives program is structured such that it enables a current or future executive the opportunity to complete the academic requirements for the degree within 21 months while he or she continues to meet full-time work responsibilities. Each group of students (cohort) goes through the entire program as an integrated cohort, thereby developing a close working relationship that enriches and reinforces the learning process.

The program consists of 45 credits. The general management specialty includes two specialty courses (45-credit program) and health sector management specialty includes one specialty course (45-credit program).

Classes are scheduled on Saturdays, from 8:30 a.m. to 4:30 p.m.

The program curriculum also includes a required, 12-day study-abroad visit to an emerging market in Europe, Asia or Latin America. This visit is associated with the EXEC6509 International Business course. This visit is designed to provide the student with an appreciation of the opportunities and challenges associated with pursuing global business opportunities. In addition, students in the program also benefit from an executive coaching experience where each student works individually with an executive coach on issues ranging from career development to strengths and areas for improvement.

The program charge* includes tuition, fees, books, meals, round-trip airfare and room and board during the overseas seminar. Tuition is payable at the beginning of each semester, intersession and summer session. The tuition is nonrefundable after the semester begins.

*For tuition and fees, see Registration, Tuition and Billing Information, pages 20–22. New tuition and fee charges will be announced in the spring of each year. Please check with the Office of Enrollment Services for current charges.
Program cohorts are established twice a year, both in the spring (February) and in the fall (September). New students may apply for the fall cohort as late as the third week of August and for the spring cohort as late as the third week of January. This program is offered under the auspices of the Office of Executive Programs, Silberman College of Business.

Admission Requirements
Complete credentials for the evaluation of applicants for the Master of Business Administration program include the following:
1. A bachelor's degree from an accredited college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.
3. A minimum of five years of business experience.
4. A personal interview with the program director.
5. A current professional résumé.
6. Two letters of recommendation, with one from the student's immediate supervisor.
7. At the discretion of the program director, the Graduate Management Admission Test (GMAT) requirement may be waived, based on experience and prior academic achievement.

Requirements for the Master of Business Administration Degree

M.B.A. — Management for Executives
• General Management Specialization (45 credits)
• Health Sector Management Specialization (45 credits)

General Management Specialization (45 credits)

Foundation Courses (13.5 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXEC5501</td>
<td>3</td>
</tr>
<tr>
<td>EXEC5502</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5503</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5504</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5505</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Core Courses (28.5 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXEC5506</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5507</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5508</td>
<td>3</td>
</tr>
</tbody>
</table>

Specialization Courses (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHCM6901</td>
<td>1.5</td>
</tr>
<tr>
<td>EHCM6902</td>
<td>1.5</td>
</tr>
<tr>
<td>EHCM6903</td>
<td>3</td>
</tr>
</tbody>
</table>

Health Sector Management Specialization (45 credits)

Foundation Courses (13.5 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHCM6901</td>
<td>3</td>
</tr>
<tr>
<td>EHCM6902</td>
<td>3</td>
</tr>
</tbody>
</table>

Core Courses (28.5 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHCM6903</td>
<td>3</td>
</tr>
<tr>
<td>EHCM6904</td>
<td>3</td>
</tr>
<tr>
<td>EXEC6501</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC6502</td>
<td>3</td>
</tr>
<tr>
<td>EXEC6503</td>
<td>3</td>
</tr>
<tr>
<td>EXEC6504</td>
<td>3</td>
</tr>
<tr>
<td>EXEC6505</td>
<td>3</td>
</tr>
<tr>
<td>EXEC6506</td>
<td>3</td>
</tr>
</tbody>
</table>

Specialization Course (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHCM6905</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions
See “Course Offerings,” pages 72–84.
Master of Science (M.S.) — Accounting

There are two tracks in this 30-credit program. Completion of either track will academically qualify students to take the CPA Exam. Track A is designed for students who have an undergraduate degree in accounting or taxation and law. Track B is suited for those students who have earned an undergraduate degree in another field and desire a focus in the area of accounting and taxation. The tracks are offered evenings and Saturdays.

This program is offered under the auspices of the department of accounting, taxation and law, Silberman College of Business, at the Florham Campus, Madison, New Jersey; the Metropolitan Campus, Teaneck, New Jersey; and offsite.

Admission Requirements

Complete credentials for the evaluation of applicants for the M.S. degree program include the following:

1. A four-year bachelor's degree from an accredited or government-recognized college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.
3. An official score report for the Graduate Management Admission Test (GMAT). FDU undergraduates with exemplary grade point ratios are eligible to waive the GMAT/GRE. The GMAT requirement may be waived based on experience and prior academic achievement. Contact the Office of Graduate Admissions for information.
4. A minimum score of 550 (paper-based) or 213 (computer-based) or 79 (Internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.
5. International Student Proof of Financial Responsibility (for international students only).

Requirements for the Master of Science Degree — Accounting

Track A

This 30-credit program is for students who have the bachelor's degree or concentration in accounting and is designed to meet the 150-hour educational requirements for the CPA Exam. Completion of Track A will academically qualify students to take the CPA Exam in New Jersey.

Required Courses (15 credits)

ACCT6605 Federal Tax I: Individual................3
ACCT6606 Federal Tax II: Business Entities........3
ACCT6680 Selected Accounting Topics..............3
ACCT6682 Advanced Auditing........................3
ACCT6690 Seminar: Accounting and Auditing Case Studies........3
LAW6657 Applied Business Law.....................3

Electives (15 credits)

Accounting Elective................................................3
Accounting or Tax Electives.................................6
Business Electives..................................................6

Tax electives may be chosen from the tax courses offered by the M.S. in taxation program at the University. See pages 71–72 or http://www.fdu.edu/tax. Subject to prior approval, such tax courses may be counted toward the M.S. in taxation degree.

Track B

This 30-credit program is for students who do not have the bachelor's degree in accounting. NOTE: At least one undergraduate course in financial accounting is required for admission into the program.

The requirements for the New Jersey CPA Exam will change effective June 2017. In addition to 24 credits of accounting courses, 24 credits of business courses are also required. Six credits of business courses are already included in this Track B program. Students who have a business background with sufficient number of business credits will qualify to sit for the New Jersey CPA Exam. Students who do not have any business credits or have insufficient business credits will have to take up to an additional 18 credits of business courses to take the New Jersey CPA Exam.

Required Courses (50 credits)

ACCT6603 Federal Tax I: Individual.....................3
ACCT6604 Federal Tax II: Business Entities...........3
ACCT6617 Cost: Measurement, Planning and Control........3
ACCT6618 Auditing Concepts and Methods............3
ACCT6630 Intermediate Accounting I..................3
ACCT6635 Intermediate Accounting II................3
ACCT6640 Advanced Financial Accounting............3
ACCT6680 Selected Accounting Topics................3
FIN6620 Financial Analysis for Accountants*........3
LAW6657 Applied Business Law.......................3

For Information

For detailed information contact department of accounting, taxation and law, at (973) 445-8810 or (201) 692-7213.

Course Descriptions

See “Course Offerings,” pages 72–84.

*An ACCT or TAX course may be substituted with documentation of an equivalent finance class.
Master of Science (M.S.) — Digital Marketing

The emergent digital environment has been transforming all aspects of business. Firms, regardless of their specialty, industry and size, are increasingly using digital technologies to communicate with clients, recruit employees, form relationships with consumers and develop brands. Spending on digital marketing is rising with 80 percent of companies planning to increase their digital budget with digital ads estimated to make up 41.4 percent of total media ad expenditures by 2019. Digital engagement and marketing operations/technology are top areas for skill development. Specifically, digital marketing, social media, search-engine optimization and analytics-related jobs are particularly in high demand.

This online program is offered under the auspices of the department of marketing and entrepreneurship, Silberman College of Business, Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

The M.S. in digital marketing prepares students to be tech savvy and strategically creative to fill a range of digital marketing positions ranging from content creation and social media to creative services and production.

The 30–34 credit program is delivered entirely online. The program credits are distributed across a core curriculum followed by elective courses and a flexible experiential learning module (i.e. internship or thesis option).

Admission Requirements

Complete credentials for the evaluation of applicants for the M.S. degree program include the following:

1. A bachelor’s degree from an accredited college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.
3. An official score report for the Graduate Management Admissions Test (GMAT)/GRE taken within the last five years. GMAT may be waived based on experience and prior academic achievement.
5. A minimum score of 550 (paper-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.

Requirements for the Master of Science Degree

Foundation Module (4 credits)
Provides an understanding of the marketing discipline. May be waived based on prior academic preparation, reducing the degree to 30 credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI5012</td>
<td>Statistical Data Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td>Marketing Principles</td>
<td>2</td>
</tr>
</tbody>
</table>

Digital Marketing Core (14 credits)
In addition to covering core topics in marketing strategy and consumer behavior, this module will provide a comprehensive understanding of digital marketing, social media marketing and mobile marketing.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG6012</td>
<td>Marketing Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6111</td>
<td>Digital Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6112</td>
<td>Social Media Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6113</td>
<td>Mobile Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6602</td>
<td>Marketing Research</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6603</td>
<td>Consumer Behavior</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6605</td>
<td>Marketing Communications</td>
<td>2</td>
</tr>
</tbody>
</table>

Specialized Core (up to 14 credits)
Enables acquisition of specialized knowledge and skills based on personal interest and career path. Courses include topics related to search-engine optimization, web analytics, harnessing big data, database management and emerging technologies in marketing.

Admission Requirements

Complete credentials for the evaluation of applicants for the M.S. degree program include the following:

1. A bachelor’s degree from an accredited college or university.
2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.
3. An official score report for the Graduate Management Admissions Test (GMAT)/GRE taken within the last five years. GMAT may be waived based on experience and prior academic achievement.

Course Descriptions
See “Course Offerings,” pages 72–84.
years. GMAT may be waived based on experience and prior academic achievement.


5. A minimum score of 550 (paper-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.

**Requirements for the Master of Science Degree — Supply Chain Management**

The M.S. in supply chain management is obtained by completing 10 required classes in foundation courses (6 credits), core courses (15 credits) and enrichment courses (9 credits).

**Foundation Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DSCI6600 Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6700 Supply Chain Strategies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Core Courses (15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DSCI6810 Operations Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6820 Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6830 Demand and Revenue Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6840 Global Sourcing, Procurement and Negotiations</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6850 Global Supply Chain Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

**Enrichment Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI6650 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6750 Supply Chain Technologies</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6780 Sustainable and Lean Six Sigma</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Descriptions**

See “Course Offerings,” pages 72–84.

**Master of Science (M.S.) — Taxation**

The Master of Science in taxation is designed for those who currently practice in the field of taxation, such as accountants, attorneys and financial planners, as well as those who wish to enter the field by undertaking an intense study of the subject. It is highly focused and practice oriented, dedicated exclusively to the study of taxation. In scope, it is much more specific than the traditional course of study pursued in an M.B.A. program with only a concentration in taxation. The M.S. in taxation program provides students with an in-depth exposure to many areas of taxation, including individual, partnership, corporate, international, compensation, trusts, procedures and estate taxation. The course offerings in the program will not only cover the basic areas of taxation but will also encompass advanced subject matter and procedural areas of tax law. Credits in the M.S. in taxation program may qualify toward the 150 semester hours of education requirement for obtaining CPA certification. Details on what will qualify may, however, vary from state to state depending on the rules of each state accounting board.

Weekday evening classes are offered at the Florham Campus, Madison, New Jersey. From time to time, classes may be offered at the Metropolitan Campus, Teaneck, New Jersey. In addition, some classes are offered on Saturdays at the Florham Campus.

For more information, contact the program director at (973) 445-8869.

For the latest updates about the M.S. program, visit the M.S. in taxation website at http://www.fdu.edu/tax.

The program is offered under the auspices of the department of accounting, taxation and law, Silberman College of Business, Florham Campus, Madison, New Jersey.

**Admission Requirements**

Complete credentials for the evaluation of applicants for the M.S. degree in taxation program include the following:

1. A bachelor’s degree from an accredited college or university.

2. Official transcripts from all colleges and universities in which undergraduate or graduate course work was completed.

3. An official score report for the Graduate Management Admissions Test (GMAT) or Graduate Record Examinations (GRE) taken within the last five years (see GMAT Waiver below).

4. A minimum score of 550 (paper-based) or 213 (computer-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.

5. International Student Proof of Financial Responsibility (for international students only).

**GMAT Waiver**

The GMAT requirement is waived for CPAs, Enrolled Agents, Certified Financial Planners, Certified Management Accountants, Chartered Financial Analysts, attorneys and graduates with an M.B.A. degree from an AACSB-accredited college or university as long as applicants have undergraduate/graduate grade point ratios (GPRs) of 3.00 or higher (or if the Graduate Committee grants an exception for lower than 3.00 GPR).

Fairleigh Dickinson University graduates with exemplary GPRs are eligible to waive the GMAT.

The GMAT is also waived for applicants who have relevant and substantial professional work experience in the field of accounting, financial planning and/or taxation. Such applicants will need to document at least three years of relevant professional work experience. Students admitted under the work-experience exception will gain conditional admission and will be required to maintain at least a cumulative 3.00 GPR in their first 9 credits in the M.S. in taxation program or else be required to take the GMAT.

The admission formula for all others, for whom the GMAT is not waived, is a minimum score of 1,050, arrived at based on the applicant’s cumulative GPR x 200, plus the GMAT score.

For example, an applicant with a 3.20 undergraduate GPR and 470 grade on the GMAT would score 1,100.

For more information about the GMAT, call 1-800-717-4628 or 609-771-7330. Its website is www.mba.com.
Requirements for the Master of Science Degree — Taxation

The M.S. in taxation degree is obtained by completing 10 tax classes (30 credits) in required and elective courses. Seven core courses (21 credits) listed below are required of all students. The remaining courses (9 credits) may be selected from electives listed below. To graduate, students must maintain a cumulative grade point ratio (CGPR) of 3.00 or better.

Additional prerequisite courses may be required of incoming students not meeting the appropriate undergraduate requirements. These prerequisite courses (or equivalents) include 3 credits in accounting, 6 credits in taxation, 3 credits in business law and 3 credits in finance.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAX6621 Advanced Federal Tax: Individual Income Taxation</td>
<td>3</td>
</tr>
<tr>
<td>TAX6622 Advanced Corporate Tax I</td>
<td>3</td>
</tr>
<tr>
<td>TAX6670 Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>TAX6830 Tax Research</td>
<td>3</td>
</tr>
<tr>
<td>TAX7724 Tax Practice and Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>TAX7727 Advanced Federal Tax: Property Transactions</td>
<td>3</td>
</tr>
<tr>
<td>TAX7728 Partnership Taxation</td>
<td>3</td>
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</tbody>
</table>

Electives

Three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAX6625 Estate and Gift Taxation</td>
<td>3</td>
</tr>
<tr>
<td>U.S. International Corporate Taxation</td>
<td>3</td>
</tr>
<tr>
<td>TAX7708 International Tax I: Sourcing and Inbound</td>
<td>3</td>
</tr>
<tr>
<td>TAX7710 International Tax II: Outbound</td>
<td>3</td>
</tr>
<tr>
<td>TAX7711 International Tax III: Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>TAX7725 Estate and Gift Tax Planning</td>
<td>3</td>
</tr>
<tr>
<td>TAX7726 Advanced Corporate Tax II</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions

See “Course Offerings,” pages 72–84.

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.

Note: Prerequisite courses for 6000-level and higher courses typically include the discipline’s M.B.A. core courses. Check with your adviser.

ACCT5012
2 Credits
Financial Accounting: End-User Applications

This course focuses on the information needs of the users-of-financial-statements community that includes, but is not limited to, managers, investors, creditors and regulators. The primary context of the course is financial accounting for corporate entities. This course assumes no prior knowledge of financial accounting.

ACCT5521
3 Credits
Financial Accounting: An End-user Approach

An introduction to the financial reporting environment. Develops an understanding of the conceptual framework that underlies financial-statement preparation and presentation for both domestic and multinational firms. The course will provide students with the necessary skills to understand, use and analyze financial statements.

ACCT6012
2 Credits
Managerial Accounting Applications

This course focuses on the decision-support information that managers regularly use and need in the contemporary business setting. Topics include cost-volume profit, cost behavior, product costing, pricing, quality costs, budgeting variance analysis, short-term decision making and business-unit performance measurement. The course will begin with a session on understanding financial statements to provide articulation with the financial accounting course prerequisite. Prerequisite: ACCT5012 Financial Accounting: End-User Applications.

ACCT6605
3 Credits
Federal Tax I: Individual

A first course in taxation for graduate students without prior study in taxation. It examines tax principles as they affect the individual.

ACCT6606
3 Credits
Federal Tax II: Business Entities

This course is a sequel to ACCT6605 Federal Tax I: Individual. It examines taxation as it concerns business entities, such as C and S corporations, LLCs and partnerships. Students are encouraged to take ACCT6605 Federal Tax I:
Business • Course Offerings


ACCT6610
3 Credits
Managerial Accounting Applications
An introduction to management accounting as part of a company's quantitative information system. Emphasis is placed on the role of accounting in decision making.

ACCT6612
3 Credits
Planning and Budgeting
Importance of business planning and control from the managerial point of view. Emphasis is on budgeting as a tool for profit planning and control. Prerequisite: ACCT5012 Financial Accounting: End-User Applications.

ACCT6617
3 Credits
Cost: Measurement, Planning and Control
The basic elements of cost and cost control. Cost-accounting systems such as process costing, job-order costing, standard and direct costing, the planning, budgeting and control functions. Prerequisite: ACCT2021 Introductory Financial Accounting or ACCT5012 Financial Accounting: End-user Applications.

ACCT6618
3 Credits
Auditing Concepts and Methods
The auditor's report. Basic auditing concepts and methods are studied in detail as they relate to assets, liabilities, revenues and expenses. Prerequisite: ACCT6630 Intermediate Financial Accounting I.

ACCT6650
3 Credits
Intermediate Accounting I
An in-depth study of generally accepted accounting principles as they relate to corporations; particular attention is given to financial reporting, revenue recognition, asset valuation and measurement. Basic difference in U.S. and international accounting are identified. Topics of current interest and controversy are introduced to prepare the student for more advanced courses. Prerequisite: ACCT5012 Financial Accounting: End-User Applications or undergraduate equivalent.

ACCT6655
3 Credits
Intermediate Accounting II
This course continues the in-depth study of financial accounting begun in ACCT6630 Intermediate Accounting I. Pronouncements of the Financial Accounting Standards Board and their applications, such as imgmtn the areas of accounting for liabilities, stockholders equity, dilutive securities, earnings per share and statement of cash flows are examined. Basic differences in U.S. and international accounting are identified. Recent developments and prospects for the future change in accounting thought are considered. Prerequisite: ACCT6630 Intermediate Accounting I or undergraduate equivalent.

ACCT6640 (formerly ACCT6616)
3 Credits
Advanced Financial Accounting
An in-depth study of the accounting principles related to special areas such as business combinations, consolidations, foreign operations and partnerships. There is some exposure to accounting for nonprofit institutions such as state and local governments, educational systems, institutions and hospitals. Prerequisite: ACCT6650 Intermediate Financial Accounting I.

ACCT6680
3 Credits
Selected Accounting Topics
A graduate-level course for students with a strong financial-theory background. The course focuses on a wide range of areas confronting accounting graduates in the public and private sectors. Topics include public offerings, SEC reporting and compliance, accounting and reporting in the regulated industries, not-for-profit accounting and recent pronouncements by the Financial Accounting Standards Board. Prerequisite: ACCT6630 Intermediate Accounting II.

ACCT6682
3 Credits
Advanced Auditing
The material for the first half of the course introduces the concept of auditing in the environment of a modern information system. The second half of the course covers analytic methods and statistics in an auditing environment. Prerequisite: ACCT4263 Auditing Concepts or ACCT6618 Auditing Concepts and Methods.

ACCT6684
3 Credits
Advanced Managerial Applications
This is an advanced course in managerial accounting designed to develop a further appreciation for the uses of cost information in the administration and control of business organizations. The course focuses on measurement, analysis and use of accounting information for management decision-making in manufacturing, merchandising and service-oriented businesses. The course may employ the case method to better understand how managerial accounting can create positive change in business organizations in a variety of industries. The course focuses on critical-thinking skills, decision making and communication. Prerequisite: ACCT4243 Cost Measurement and Control.

ACCT6690
3 Credits
Seminar: Accounting and Auditing Case Studies
A capstone course in the graduate program integrating technical and analytical accounting and auditing skills acquired throughout the program. The course makes exclusive use of case studies and group problem solving conducted by faculty and professionals from the corporate and public accounting sectors. Prerequisites: ACCT4242 Financial Accounting Theory II and ACCT4263 Auditing Concepts or ACCT6618 Auditing Concepts and Methods and ACCT6635 Intermediate Accounting II.

ACCT6800
1–3 Credits
Graduate Independent Study
Studies in area of discipline with departmental approval.

ACCT7701
3 Credits
International Accounting
International accounting concepts and practices, including the influence of foreign national policies, legal requirements and business structures. Prerequisite: ACCT6630 Intermediate Financial Accounting I.

ACCT7702
3 Credits
Forensic Accounting and Litigation Support
Focuses on the role of the accountant in the area known as litigation support services. The course will be heavily case oriented and will encompass the accountant’s role in such diverse consulting services as fraud investigation, commercial damages, business valuation, matrimonial disputes and forensic accounting services.

ACCT7737
3 Credits
Corporate Financial Reporting
The fundamental underlying assumptions of accounting, the communications problem, the uses of the financial statements and the subjective standards of “fairness.” Ethical problems of reporting as they relate to management and to the auditor. The surveillance and enforcement functions of the Securities and Exchange Commission and other related institutions. The expansion of the reporting function to include forecasting, disclosures by diversified companies and other topics of current interest. Prerequisite: ACCT6630 Intermediate Financial Accounting.
BUSIS500  
3 Credits  
Executive Communication and Leadership  
This course is designed to provide students with: 1) a foundation in communication theory; 2) opportunities to evaluate and improve their managerial communication skills, both written and oral; and 3) an understanding of the strong correlation between communication and the responsibilities of top-level executives in organizations. Sample topics include persuasion theory, leadership styles, active listening, the writing process, audience analysis and platform dynamics.

DSCI5012  
2 Credits  
Statistical Data Analysis  
This course introduces statistical thinking and practices of how to draw conclusions from the sample data. Topics include descriptive statistics, probability theory, statistical influence methods, analysis of variance and regression. Statistical software is frequently used for the computation. Emphasis is on understanding and interpreting statistical information and explaining statistical ideas to non-specialists.

DSCI6012  
2 Credits  
Operations Management  
The course provides concepts and knowledge on how firms design, produce and deliver goods and services to their customers. The broad themes of the course touch upon strategy, planning and control operations to achieve quality, efficiency, flexibility and speed. The course emphasizes the flows of material and information among the various supply-chain participants that create value. Analytical techniques in management science are introduced to solve various operations-management problems. Prerequisite: DSCI5012 Statistical Data Analysis.

DSCI6112  
2 Credits  
Project Management  
This course is designed to offer the student the opportunity to learn how to effectively plan and manage projects that meet their organization's business goals. The course addresses fundamental concepts of successful project management, and the technical and managerial issues, methods and techniques of project management, and of managing project managers.

DSCI6600  
3 Credits  
Business Analytics  
This course explores data-driven methods that are used to analyze and solve complex business problems. Students will acquire analytical skills in building, applying and evaluating various models with hands-on computer applications. Topics include descriptive statistics, time-series analysis, regression models, decision analysis, Monte Carlo simulation and optimization models.

DSCI6650  
3 Credits  
Project Management  
This course addresses fundamental concepts of successful project management, with emphasis on project selection, planning and scheduling, team formation and governance, risk management, resource allocation and progress monitoring. Students will develop the skills on how to effectively plan, execute and manage projects and project portfolios that meet their organization's business goals.

DSCI6700  
3 Credits  
Supply Chain Strategies  
This course provides an integrated and comprehensive coverage of topics in supply-chain management, emphasizing issues, challenges and opportunities. It surveys current best practices in strategies and business models in a global supply chain. Topics include supply-chain coordination, management of demand, sourcing, inventories, operations and logistics in a global supply chain, supply chain risk management and the role of information technology.

DSCI6750  
3 Credits  
Supply Chain Technologies  
This course examines information technology applications that support a firm's operations in supply-chain management, purchasing, logistics and customer/supplier relations. It illustrates how the internet and information technologies are used to gain and sustain competitive advantage. Topics include ERP systems, SCM systems, CRM systems, e-procurement and e-logistics management systems and other e-business applications. Prerequisite: DSCI6700 Supply Chain Strategies.

DSCI6780  
3 Credits  
Sustainable and Lean Six Sigma  
As organizations strive to provide high-quality goods and services while achieving financial sustainability and growth, they are facing increasing pressures and government regulations in terms of environmental responsibilities. This course presents a holistic approach to operational excellence in supply chains, demonstrating the methodologies and practices that successfully combine Six Sigma ideas with lean and environmental sustainability. Prerequisite: DSCI6700 Supply Chain Strategies.

DSCI6800  
1–6 Credits  
Graduate Independent Study  
Studies in an area of discipline with departmental approval.

DSCI6810  
3 Credits  
Operations Analysis  
This course focuses on developing skills in building, implementing and evaluating optimization models and techniques to facilitate and assist decision making in the supply-chain and operations-management context. It is a hands-on course with applied fields including production planning, workflow scheduling, process analysis, inventory management, capacity management, resource planning and allocation and assortment planning. Prerequisites: DSCI6600 Business Analytics and DSCI6700 Supply Chain Strategies.

DSCI6820  
3 Credits  
Logistics Management  
Stressing both analytical and strategic aspects, this course covers key logistics functions within the supply chain such as logistics network design, transportation planning and execution, distribution operations, order fulfillment and reverse logistics. Emphasis is placed on being able to recognize and manage risk, and analyze various tradeoffs in the global marketplace. Prerequisites: DSCI6600 Business Analytics and DSCI6700 Supply Chain Strategies.

DSCI6830  
3 Credits  
Demand and Revenue Management  
This course aims to give the students a broad understanding of current demand management and revenue-management practices that use forecasting and optimization models to make tactical decisions about pricing and product/service availability. Topics include demand forecasting, market segmentation and price differentiation, marketing mix, market-response modeling, capacity allocation, overbooking, markdown pricing, dynamic pricing for e-commerce and customized pricing. Prerequisite: DSCI6600 Business Analytics.

DSCI6840  
3 Credits  
Global Sourcing, Procurement and Negotiations  
This course teaches concepts and processes in supply and sourcing management, including analysis and selection of supply markets and suppliers, price and cost analysis, development of requirements, procurement of materials, services and equipment, buyer-supplier relationships, international contracts and negotiations and negotiation simulation with emphasis on global competitiveness, legal issues, social responsibilities and ethics. Prerequisite: DSCI6700 Supply Chain Strategies.
DSCI6850
3 Credits
Global Supply Chain Finance
This course demonstrates how successful management of the supply-chain activities and processes tie into the financial systems, objectives and performance of the firm. Topics include financial-statements analysis, supply-chain valuation, activity-based costing, capital-investment analysis, management of working capital, international financial markets, global trade finance and financial risk management. Prerequisite: DSCI6700 Supply Chain Strategies.

ECON5012
2 Credits
Economic Analysis
Studies in area of discipline with departmental approval.

ECON6012
2 Credits
Managerial Economics
The application of microeconomic theory to decision making in the business firm. Overview of demand and consumer behavior, production and cost management, market structure and pricing. Understanding of tools developed to support the decision-making process at managerial level. Prerequisite: FIN5012 Principles of Finance.

ECON6620
2 Credits
Economics of International Trade
An introduction to international trade, including elements of international economics and finance: barriers to trade, international commercial policies and their impact on the balance of trade, the balance of payments, capital flows, the international monetary systems. Prerequisite: ECON5012 Economic Analysis.

ECON6800
1–3 Credits
Graduate Independent Study
Studies in area of discipline with departmental approval.

ECON7745
2 Credits
Econometrics
The construction and testing of econometric models. Estimation of economic parameters, multiple regression analysis, cross section and time-series data.

EHCM6801
3 Credits
Health Sector Management and Policy
This course provides a comprehensive overview of the structure and operations of the health care industry in the United States. Special emphasis is placed on the major forces and trends that are likely to shape the industry landscape and influence relationships among key stakeholders. Fundamentals of health care delivery, funding, insurance and reimbursement are addressed. Contemporary approaches to managing access, quality, technology and costs are discussed. The political policymaking process is examined with due regard for social and ethical implications of system reform initiatives.

EHCM6802
3 Credits
Health Care Insurance, Reimbursement and Cost Control
The course will provide an overview of the principles of insurance and alternative methods of reimbursing providers for delivery of health services. Techniques used in prospective rate setting and financial risk-sharing will be discussed within the context of managed care. Contractual, regulatory and legal issues between insurers and health care providers are also examined. Contemporary approaches to managing the utilization and cost of health care services are considered. The course concludes with an assessment of future trends in health care insurance, reimbursement and cost control within the changing health care environment. Prerequisite: EHCM6801 Health Sector Management and Policy.

EHCM6803
3 Credits
Health Care Quality and Service Management
A study of the techniques and applications for measuring, assessing and improving the efficiency and effectiveness of organizational outcomes for health care firms. Qualitative and quantitative tools for managing the clinical and experiential domains of health care are presented. Contemporary models and methods for controlling process/outcome variance, enhancing health-service quality, benchmarking performance and reporting results are discussed. This course will also consider strategies for managing the human-service experience as a means to enhance patient satisfaction and achieve competitive advantage. Topical coverage will be adjusted to reflect current issues in the health care industry. Prerequisite: EHCM6801 Health Sector Management and Policy.

EHCM6901
3 Credits
Fundamentals of Health Systems and Policy
This course is designed to provide students with an overview of the fundamental characteristics of health systems in the United States relative to those in place globally. Identifies the major economic, social, demographic, political and regulatory forces that are likely to shape the external environment and linkages among the firms in this important and growing sector. The impact of these forces on health care decision making and policy formulation are discussed with due regard for legal and ethical implications.

EHCM6902
1.5 Credits
Essentials of Health Care Financial Management
This course focuses on providing students with an understanding of the unique aspects of managing financial transactions in the heavily regulated health care industry. The role of insurance coverage, health-plan design, managed-care protocols and third-party reimbursement methods will be examined from the health care provider’s perspective. Attention will also be given to managing the health care revenue cycle, including medical coding systems, billing procedures and claims adjudication. The course is intended to establish the contextual foundation of the health care financial environment and to prepare students to receive formal exposure to the principles and theories of finance at the graduate level. Prerequisite: EHCM6901 Fundamentals of Health Systems and Policy.

EHCM6903
3 Credits
Finance for Health Care Managers
This course is targeted for the health care sector manager and is intended to provide an understanding of the role of financial management in the context of health care operations. It provides both the financial theories that a general manager needs to know and their applications to decision making in the health services. The course will build on the contextual foundations of the health care environment discussed in earlier courses. Prerequisites: EHCM6902 Essentials of Health Care Financial Management, EXEC5508 Statistical Thinking and Methods, EXEC6502 Financial Accounting and Reporting and EXEC6505 Managerial Economics.

EHCM6904
3 Credits
Health Care Operations Management
This course aims to provide the student with an understanding of — and skills to apply — the techniques for improving the performance of decision-making and delivery processes that enable provision of high-value health care services from a multi-stakeholder perspective. The course will present contemporary qualitative
and quantitative operations management tools and methodologies with applications in health care service infrastructure, including balanced scorecards, performance measurement, monitoring, benchmarking and reporting, statistical process control, quality management, process design and improvement, scheduling and capacity management. This course will also consider strategies for managing the human service experience as a means to enhance patient satisfaction and achieve competitive advantage. Prerequisites: EHCM6901 Fundamentals of Health Systems and Policy, EHCM6902 Essentials of Health Care Financial Management and EXEC5508 Statistical Thinking and Methods

EHLS6803
3 Credits
Managed Care and Provider Reimbursement
The study of current public- and private-sector reimbursement methodologies for acute, primary and chronic-care service providers. Techniques used in prospective rate setting and financial risk-sharing arrangements in the context of managed care will also be discussed. The course also examines regulatory and contractual issues as well as methods for expense management such as the use of formularies and tiered-benefits designs. The impact of managed care and reimbursement trends are considered as future challenges to health care and life sciences managers.

EHLS6804
3 Credits
Health Sector Marketing and Consumer Behavior
An integrated overview of the theory and processes of modern marketing and consumer behavior as they apply to the delivery of health products and services to diverse populations. Emphasis is placed on the uniqueness of health services and social responsibility. Topics include market analysis, competitive positioning, development of the strategic marketing mix and customer service quality. Principles of product-concept development, pricing and distribution are presented. Strategies for promotion of health-related goods and services as well as regulations governing advertising, education and use of opinion leaders are discussed.

EHLS6805
3 Credits
Health Care Financial Operations
A manager’s view of the principles of finance and their application to the internal operations of health care organizations. Methods for assessing the financial performance of health care facilities are reviewed. Techniques for financial planning, budgeting, cost analysis and current asset management are discussed. Issues pertaining to capital formation, project analysis and corporate combinations are also addressed. Emphasis is on managerial decision-making rather than on the technical aspects of accounting and financial analysis.

EHLS6807
3 Credits
Health Quality and Outcomes Management
A study of the techniques and applications for measuring and improving the efficiency and effectiveness of organizational and service performance outcomes. Research methods, study designs and measurement issues are presented in the context of improving health care quality and outcomes. Contemporary models and methods of clinical-outcome research, benchmarking, performance measurement and public-outcomes reporting are also presented.

ENTR6012
2 Credits
Entrepreneurship and Innovation
This course is an integral component of the M.B.A. core curriculum. It provides students with an understanding of the processes associated with innovation in the context of changing economic environments that are marked by fast cycle times for services and products. Challenges and opportunities associated with creating sustainable value for an organization will be considered through the application of key concepts, processes and tools of decision-making at the level of the firm. Key concepts associated with innovation, entrepreneurship and business strategy will be validated by the use of appropriate pedagogical tools and the development of a business model project.

ENTR6112
2 Credits
Strategic Innovation Management
Perspective, of what innovation is, the importance of innovation within organizations and how it can be managed. It introduces students to key concepts and models from the strategic management and innovation management literature. Prerequisite: ENTR6012 Entrepreneurship and Innovation.

ENTR6301
2 Credits
Family Business Management
Family businesses are both the most complex and common form of business worldwide, but 85 percent fail within three generations. In this course, students will use cases and play the role of a business consultant in the process of learning how to successfully incorporate the needs of family, business and ownership, and use simulation to develop a business model that allows family businesses to successfully work together from one generation to the next — namely, from family and business development through man-
Entrepreneurship

ENTR 6012: Entrepreneurship
This course covers all aspects of entrepreneurial finance including company and investor strategy, expectations and negotiations, angel investors, venture capital, private equity, strategic alliances, the informal investor market, initial and secondary public offerings, bank lending and alternative sources of funding. Emphasis is on financing elements and techniques that make deals succeed, the implications of strategic decisions on finance and the impact of financing on the company strategy. Students are immersed in concepts such as valuation, cash flow, cash burn and analysis of viable revenue models and cost structures from both internal financing strategy and outside investor viewpoints. Financing issues will be explored in the context of start-ups, small businesses, growing ventures and internal ventures of established companies. Prerequisites: ACCT 6012 Managerial Accounting Applications, ENTR 6012 Entrepreneurship and Innovation and FIN 6012 Corporate Finance.

ENTR 6502: Entrepreneurial Finance
This course covers all aspects of entrepreneurial finance including company and investor strategy, expectations and negotiations, angel investors, venture capital, private equity, strategic alliances, the informal investor market, initial and secondary public offerings, bank lending and alternative sources of funding. Emphasis is on financing elements and techniques that make deals succeed, the implications of strategic decisions on finance and the impact of financing on the company strategy. Students are immersed in concepts such as valuation, cash flow, cash burn and analysis of viable revenue models and cost structures from both internal financing strategy and outside investor viewpoints. Financing issues will be explored in the context of start-ups, small businesses, growing ventures and internal ventures of established companies. Prerequisites: ACCT 6012 Managerial Accounting Applications, ENTR 6012 Entrepreneurship and Innovation and FIN 6012 Corporate Finance.

Enrollment to succession and change in the business. Though this course is particularly relevant for students who work in or may become part of a family business, it will give students the knowledge necessary for them in their future careers to advise family businesses. Prerequisite: ENTR 6012 Entrepreneurship and Innovation.

ENTR 6800: Graduate Independent Study
Studies in area of discipline with departmental approval.

ENTR 7012: Entrepreneurship Capstone
This course immerses students in strategic planning, financing and growing of a business or a new venture within an existing business. Under the guidance of a faculty member, student teams partner with the management teams of real businesses to create and develop an entrepreneurial strategy and a business plan. Each team develops its business plan to provide an integrated framework for profitable growth in the context of the venture's strategic objectives. The course provides hands-on fieldwork in which students apply concepts they have acquired in their previous course work in addition to their professional experiences. Client companies typically cover a wide range of industries, market size, stage and growth opportunities. MBA capstone course; available to every MBA candidate.

ENTR 7804: Social Entrepreneurship
This course provides an opportunity for students to gain an understanding of the importance of employing entrepreneurial approaches to solving social problems and how social enterprises can be created and effectively managed. It introduces students, through lectures and case analyses, to challenges in running a social enterprise and strategies available to social entrepreneurs to effectively meet the challenges. Students have an opportunity to develop a business model for a new social enterprise or analyze the strategies and performance of an existing social enterprise, through a project. Prerequisite: ENTR 6012 Entrepreneurship and Innovation.

EXEC 5501: Fundamentals of Financial Accounting
An introduction to the basic financial statements and the underlying concepts, conventions and principles.

EXEC 5506: Principles of Microeconomics
Microeconomic foundations of consumer and business decisions, market structure and industrial organization.

EXEC 5507: Principles of Finance
This course studies the essential compounding-discounted techniques used to price assets and projects with deterministic cash flows. The course also studies the role of financial systems with regard to raising capital.

EXEC 5508: Statistical Thinking and Methods
This course introduces statistical ideas and methods of how to draw conclusions from the data. It provides students with the ability to think statistically and appreciate statistical ideas. Topics include descriptive statistics, probability theory, confidence intervals, hypothesis testing, correlation, regression, analysis of variance and an introduction to nonparametric statistics. Statistical software is used frequently for computations. Emphasis is on interpreting statistical results and using statistical analyses for decision making.

EXEC 6501: Corporate Creativity and Innovation
This 1.5-credit course is an integral part of the core curriculum in the M.B.A. management for executives program. It provides students with an appreciation for the role of creativity and innovation in facilitating the emergence of organizations and their continued development and growth. Students will examine the opportunities and challenges associated with applying these concepts in the creation of sustainable organizational value. A variety of individual and team-based assignments will be used to validate and apply the concepts presented in this course.

EXEC 6502: Financial Accounting and Reporting
This course focuses on the decision-support information that managers regularly use and need in the contemporary business setting. Topics include cost-volume profit, cost behavior, product costing, pricing, quality costs, budgeting variance analysis, short-term decision making and business-unit performance measure-
ment. The course will begin with a session on understanding financial statements to provide articulation with the financial accounting prerequisite. Prerequisite: EXEC5504 Fundamentals of Financial Accounting.

EXEC6503 3 Credits
Managerial Economics
Microeconomic theory as applied to decision making in the business firm. Emphasis is placed on customer demand, cost management, strategic and tactical pricing, market and competitive actions and analyses. Prerequisites: EXEC5501 Macroeconomic Analysis and EXEC5506 Principles of Microeconomics.

EXEC6504 3 Credits
Finance for Managers
The course provides a practical view of the theories and models of finance for the general manager. It will explore risk-return models, cost of capital, capital budgeting, capital structure theory and practice. The course will also introduce a selection of topics such as, but not limited to, corporate reorganization and governance, quantifying strategic decisions with real options, dividend policy mergers and acquisitions or other timely topics of interest. Prerequisite: EXEC5507 Principles of Finance.

EXEC6505 3 Credits
Organizational Behavior and Leadership
Creating and leading sustainable, ethical, successful and responsive organizations is the primary challenge for business and nonprofit leaders today. This course brings together the knowledge, research, insights and experiences of both management academics and organization development and management practitioners to address the challenges and opportunities in understanding and managing organizational behavior. This course emphasizes concepts and tools for assessing the social processes encountered in the workplace, so that one can become an effective and responsible leader, and it develops the students’ own leadership skills and competencies. Prerequisite: EXEC5503 Fundamentals of Management

EXEC6506 3 Credits
Strategic Marketing
This course addresses the strategic and consequent tactical concerns of a business in terms of building value. The course will address topics such as segmentation and positioning, new product development and launch, brand equity, sustainability, product policy, pricing policy, distribution choices (bricks-and-mortar and e-commerce) and supply-chain management, promotional strategy and customer relationship management. Students will apply marketing principles in formulating marketing strategies and making managerial recommendation. Prerequisite: EXEC5504 Fundamentals of Marketing.

EXEC6507 3 Credits
Strategic Management of Information Systems
This course focuses on the alignment of information systems (IS) with business strategies in order for business organizations to gain competitive advantage in a globalization environment. It explores fundamental concepts, models and frameworks of IS regarding the planning, investment, implementation and evaluation of information systems for strategic purposes. The course also examines the role of IS in transforming the organizational and business environment through the employment of various strategies, applications and technologies.

EXEC6508 3 Credits
Supply Chain Management
This course addresses the strategic and operational role of supply-chain management in the global business environment. It examines how supply-chain participants enhance the value of their products and services by orchestrating the management of quality, efficiency, flexibility and speed. Management science methods are utilized to obtain analytical solutions using mathematical models and software.

EXEC6509 3 Credits
International Business
The study of basic managerial functions appropriate to international business. The role of the multinational corporation in contemporary world trade is discussed. Topics covered include organization, foreign licensing, international aspects of management, finance, taxation and cultural differences. This course includes a structured foreign-study tour to permit students to compare international business practices with those of U.S. firms. Knowledge acquired through the experience will be linked to other courses.

EXEC6510 3 Credits
Global Business Capstone
The focus of this course is on corporate-level strategy for multinational firms striving to strategically restructure their business portfolios by expanding and diversifying domestically and internationally. Topics will include diversification strategies, tactics for global market entry/exit and structural alternative to support growth. Emphasis will be placed on integrating functional plans for implementing strategy at the corporate level. Students will work in teams to develop a comprehensive strategic plan using case studies of real-world companies as the primary learning modality.

EXEC6901 1.5 Credits
Managing Sustainability for Competitive Advantage
Pursuing the “triple bottom line” of financial success, ecological stewardship and social equity has become essential to achieving sustained competitive advantage. This course will focus on the current and future challenges and opportunities relating to climate change, sustainable economic development and the role of business. It also will explore the theory, values and practical aspects of sustainability with special emphasis on strategic effectiveness. The class will draw on real issues and experiences of managers through case studies and guest speakers. Career opportunities in relation to sustainability will also be discussed.

FIN5012 2 Credits
Principles of Finance
This course surveys the financial environment and performs comparisons of firms based on their financial statements. It studies the essential compounding-discounting techniques used to price assets and projects with deterministic cash flows. Prerequisites: ACC5102 Financial Accounting: End-user Applications and ECON5001 Economic Analysis.

FIN6012 2 Credits
Corporate Finance
This course discusses how some of the most important financial theories are applied to a corporate setting. Blending theory and practice, the course introduces the concepts of risk, cost of capital, commitment of funds for long-term capital investment and other applications of interest. Prerequisites: DSCT5012 Statistical Data Analysis and FIN5012 Principles of Finance.

FIN6020 3 Credits
Financial Analysis for Accountants
The course covers the essential financial topics for the CPA exam. An introduction to time value of money and financial markets is followed by the valuation of bonds and stocks. Risk return models and capital structure are incorporated into a discussion of the cost of capital. Evaluation of cash-flow and project selection introduces the student to asset valuation.
Analysis of financial ratios and of cash-conversion cycle lead to an understanding of the short-term management of the financial position of the firm.

FIN6112
2 Credits
Financial Decisions for Sustainable Enterprise
This course introduces the student to strategic financial decisions for a sustainable enterprise. The course discusses various strategic real options that would ensure that the corporation acts at the best time capturing the most value from its multiple strategic options. In addition, the course discusses capital structure and the various theories leading to a minimum cost of capital that would ensure that corporations have access to more projects and thus could create more value. Finally, concepts of valuation and its maximization toward achieving sustainability of the enterprise as well as the social and natural environment would be presented. Therefore, the course proposes to raise the awareness of the student to concepts of sustainable enterprise from financial perspectives leading to sound actions. Prerequisite: FIN6012 Corporate Finance.

FIN6701
2 Credits
Strategic Financial Decisions
This course explores how sophisticated financial theory and knowledge can be used for the strategic decisions of the corporation. Prerequisite: FIN6012 Corporate Finance.

FIN6721
2 Credits
Financial Markets and Investments
This course sets forth the theoretical framework underlying the role of capital markets. It studies the various financial instruments within the many asset classes and their trading. In addition, it introduces macro and industry analysis, the term structure of interest rates and other relevant concepts for investment analysis. Prerequisite: FIN6012 Corporate Finance.

FIN6751
2 Credits
Mergers and Acquisitions
The course covers mergers and acquisitions (M&A), leveraged buyouts and joint ventures and strategic alliances as well as corporate restructurings. The history, laws and strategy of M&A along with corporate governance, sell-offs and business valuation are covered. Prerequisite: FIN6012 Corporate Finance.

FIN6800
1–2 Credits
Graduate Independent Study
Studies in area of discipline with departmental approval.

FIN6801
2 Credits
Seminar in Corporate Finance
Advanced study in corporate finance. Specific topics vary by instructor. May be taken more than once with different instructors. Prerequisite/corequisite: FIN6012 Corporate Finance.

IBUS6012
2 Credits
International Business Concepts
This is a survey course that introduces graduate students to international business. The underlying factors that drive globalization, shape international business environments and influence business strategies and organizational structures of multinational corporations are critically examined in the course. Thus, the course provides students with the necessary concepts, tools and skills that will permit them to analyze and respond effectively to dynamic changes in the global environment.

IBUS6020
2 Credits
Economics of International Trade
An introduction to international economics, including international commercial policies and their impact on the balance of trade, the balance of payments, capital flows and the international monetary system. Prerequisite: ECON5012 Economic Analysis.

IBUS6072
2 Credits
International Management
Operation of businesses in an international environment and the issues involved in ownership, management, labor, production, legal, control and public affairs as a result. Prerequisite: MGMT5012 Foundations of Management.

IBUS6706
2 Credits
International Marketing
An introduction of marketing considerations in international markets. Cultural differences, social patterns, channels of distribution, product attributes, pricing policies and promotional policies are examined within an international framework. Prerequisite: MKTG5012 Marketing Principles.

IBUS6742
2 Credits
Global Finance
This course examines how the access and exposure to different currency, country and market environments can affect the financial and investment decisions of the firm. Topics include the determination of the exchange rates, measurement and management of the different exposures to currency risk, international investment decisions by firms, hedging and other timely topics. Prerequisite: FIN6012 Corporate Finance.
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discussed. The general management functions of planning, organizing, controlling, staffing and leading will be introduced. Also covered in this course will be the basics of competitive strategy formulation, organization design, motivation, goal setting, group/team dynamics, international management and ethical decision making, as foundations for more advanced treatment of these topics in the M.B.A. core.

MGMT6012
2 Credits
Organizational Behavior and Leadership
This course emphasizes concepts and tools for assessing the social processes encountered in the workplace. Although the primary focus is on understanding and managing individuals and teams, there is significant attention to system-level behavior and change. Students will focus on the application theories and the development of managerial skills, such as understanding individual differences, effectively working in teams, motivating and influencing others, managerial communications, ethical decision-making and leadership, as well as managing organizational change. Prerequisite: MGMT5012 Foundations of Management.

MGMT6112
2 Credits
Managing Sustainability in a Global Environment
The course will focus on the current and future challenges and opportunities relating to climate change, sustainable economic development and the role of business. It will explore theory, the values and practical aspects of sustainability, with special emphasis on the role of leadership and managing change. Prerequisite: MGMT6012 Organizational Behavior and Leadership.

MGMT6201
2 Credits
Strategic Human Resource Management
This course focuses on the new and expanded role of the human resource professional. The course content is centered on the activities performed by a human resource department, for example, recruitment and selection, and compensation and benefits, which are the building blocks for the HR professional. An understanding of these HR functions also is important for line managers who have substantial responsibility for managing people. Prerequisite: MGMT6012 Organizational Behavior and Leadership.

MGMT6205
2 Credits
Managing a Healthy Workforce
People are the most important resource in determining the overall performance of organizations. Business enterprises are the largest financers of health insurance in the United States and are uniquely positioned to promote and influence the health, well being and productivity of workers. This course adopts an interdisciplinary approach to the challenge of managing a healthy workforce. Students will utilize knowledge acquired in their M.B.A. core courses to analyze and propose solutions to contemporary challenges such as responding to the mandates of recent health care reform legislation, promoting the health status of employees and their dependents, occupational health and safety, coping with job stress, managing the chronic-care needs of an aging workforce, controlling the cost and quality of health care and creating a corporate culture of health and wellness. Course participants will identify current issues and use a team approach to develop actionable management programs that foster workforce health and wellness. Prerequisites: MGMT6012 Organizational Behavior and Leadership and MGMT6201 Strategic Human Resource Management.

MGMT633
2 Credits
Leadership and Change Management
Organizations must become more nimble so they can readily adapt to the shifting needs of the global marketplace. To that end, the ability to navigate organizational change is a competitive advantage. This course focuses on the development and application of strategies that will enable individuals to successfully lead organizational change. Topics include models and frameworks of change, as well as ethical responsibility and stakeholder engagement. Prerequisite: MGMT6012 Organizational Behavior and Leadership.

MGMT640
2 Credits
Leadership Development Project
This course would include project-based and reflective learning. Emphasis will be placed on negotiation, conflict or knowledge management. This serves as the capstone experience within the management major. Prerequisite: MGMT6012 Organizational Behavior and Leadership.

MGMT6700
2 Credits
Negotiation and Conflict Management
Negotiation is a crucial aspect of the interactions among individuals, teams and organizations. Moreover, successful negotiations can create value for all participants. This course will introduce students to the theory and practice of negotiation through readings, role-play and other experiential exercises. Influences of culture and ethics on negotiation strategies will be assessed. Students will develop self-awareness through the discovery of their own negotiating style and build a repertoire of personal negotiation strategies. Prerequisite: MGMT6012 Organizational Behavior and Leadership.

MGMT6800
1–5 Credits
Graduate Independent Study
Studies in area of discipline with departmental approval.

MGMT7012
2 Credits
Global Business Capstone
Students will integrate strategic, marketing, operating and financial theories and practices to evaluate the formulation and implementation of business strategy in multinational-firm contexts. Issues pertaining to corporate diversification will be examined. Prerequisite: Completion of all 6012 core classes.

MIS6012
2 Credits
Information Systems for Managers
This course helps students understand the role of information systems (IS) in supporting business operations and strategy and become effective in IS-related decision making as it relates to the organization and the global marketplace. The students learn the key information technologies and their business applications, including e-business, e-commerce and web-based applications. The influence of information technologies on management and organizations is also studied. Challenges and opportunities that arise in using and managing information resources are examined together with the application of emerging technologies.

MKTG6012
2 Credits
Marketing Principles
This course will introduce students to marketing terminologies and concepts. The goal is to provide sufficient foundation knowledge to enable students to take courses in the core M.B.A. program. Accordingly, the course introduces students to such fundamental marketing concepts as the marketing mix, segmentation, marketing research and consumer behaviors.

MKTG6012
2 Credits
Strategic Marketing
This course addresses the set of strategic and tactical decisions that marketers need to make to be able to create, communicate and deliver value to selected target markets. The course will address topics such as segmentation, targeting and positioning; new-product development and launch; management of brand equity; and product, price, distribution and promotional strategy. Students will critique firms’ marketing strategies that illustrate these issues. Students will also be responsible for integrating these concepts into a marketing plan for a new product. Prerequisite: MKTG5012 Marketing Principles.
**Business • Course Offerings**

**MKTG6111**  
2 Credits  
**Digital Marketing Strategies**  
This course explores digital marketing trends from a theoretical and practical perspective. The class will examine topics such as website design, search-engine optimization, search-engine advertising, email marketing, reputation management and analytics. Exercises and assignments are designed to provide students with the skills to develop, implement and evaluate effective digital marketing programs. Prerequisite: MKTG6012 Strategic Marketing.

**MKTG6112**  
2 Credits  
**Social Media Strategy**  
This course explores current social media platforms and their role in a company’s marketing communication strategy, facilitating customer relationships, product innovation and brand equity. Specifically, the course examines how to create and implement a social media campaign, measure and track its performance and utilize appropriate analytic metrics and software platforms. Social media will be examined as part of a larger integrated marketing communication strategy. In addition, it will briefly cover social media’s potential role in overall business operations. Applicable consumer behavior, communication and advertising theories will be covered. Prerequisite: MKTG5012 Marketing Principles.

**MKTG6113**  
2 Credits  
**Mobile Marketing Strategies**  
This course will examine the strategic uses of mobile marketing to be able to create and critique a mobile marketing plan. Students will be introduced to the quickly evolving mobile field and be exposed to topics such as mobile-ready websites, proximity marketing, mobile advertising, mobile applications, messaging and analytics. Prerequisites: MKTG6012 Strategic Marketing and MKTG6111 Digital Marketing Strategies.

**MKTG6602**  
2 Credits  
**Marketing Research**  
This course is designed to provide an in-depth understanding of the marketing research process. This includes identifying and defining marketing problems with sufficient precision to permit the collection of the appropriate market data using a variety of methods. In addition, the course will focus on analyzing data using appropriate techniques to yield useful knowledge that can aid marketers in making better educated decisions. Prerequisites: DSCI5012 Statistical Data Analysis and MKTG6012 Strategic Marketing.

**MKTG6603**  
2 Credits  
**Consumer Behavior**  
This course will expose students to various theories and concepts relevant to understanding consumer behavior. The course will focus heavily on consumer psychology and consumer decision-making processes, including factors that influence these processes. This foundation will form the basis of understanding how managers can benefit from such knowledge so that they are better equipped to both predict and influence consumers’ responses to marketing strategies and tactics. Prerequisite: MKTG6012 Strategic Marketing.

**MKTG6605**  
2 Credits  
**Marketing Communications**  
The course is designed to provide an overview of marketing communications theory, strategy, management and tactics. Students will be exposed to a mixture of applied theory and practical examples of how marketing communications plans and tactics are developed and executed. Prerequisite: MKTG6012 Strategic Marketing.

**MKTG6614**  
3 Credits  
**Search Engine Optimization and Advertising**  
This course will provide an overview on search engine optimization (SEO), search engine marketing (SEM) and display advertising. Students will learn the importance of keyword research, on-site and off-site SEO best practices, writing effective ad copy, ad bidding, account monitoring and organizing and display networks. Prerequisites: MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies and MKTG6605 Marketing Communications.

**MKTG6615**  
3 Credits  
**Email and Database Marketing**  
This course will provide an overview of email marketing and database management and their role within an integrated marketing communication strategy. The course will examine how to create, manage and measure an email campaign as well as navigate ethical issues. In addition, emphasis will be given to developing and maintaining customer databases to further the students’ understanding of consumer behavior and build stronger customer relationships. Prerequisite: MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies, MKTG6603 Consumer Behavior and MKTG6605 Marketing Communications.

**MKTG6616**  
3 Credits  
**Content Marketing**  
This course will explore the important role that marketing plays in a company's inbound marketing strategy. Students will learn how to identify/develop engaging content, manage digital assets, understand applicable copyright and legal regulations, execute a content strategy and measure campaign results. Prerequisites: MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies and MKTG6605 Marketing Communications. Corequisite: MKTG6612 Social Media Strategy.

**MKTG6617**  
3 Credits  
**Web Analytics**  
This course will explore how to utilize quantitative and qualitative data to better inform marketing decisions. Students will identify key performance indicators (KPI), be exposed to a variety of analytic tools, conduct A/B testing, familiarize themselves with analytic dashboards and create actionable analytic reports that will provide insight into website design, buying behavior, social media and advertising-related decisions. Prerequisites: DSCI5012 Statistical Data Analysis, MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies and MKTG6602 Marketing Research.

**MKTG8800**  
1–2 Credits  
**Graduate Independent Study**  
Studies in area of discipline with departmental approval. (Internship or special projects)

**MKTG8850**  
1–2 Credits  
**Advanced Special Projects: Marketing**  
Studies in an area of marketing, with departmental approval. It is the student’s responsibility to obtain a faculty mentor. Prerequisite: MKTG5012 Marketing Principles.

**PHAR6601**  
3 Credits  
**Health Care Systems and Policy**  
This course provides a comprehensive overview of the structure and operations of the United States health care delivery system. Major forces and trends that are likely to shape the external environment and linkages among industry stakeholders are identified and examined. Fundamentals of health care economics, financing, reimbursement, quality assurance and political policymaking are discussed with due regard for social and ethical implications. The spectrum of life sciences is considered in relation to the continuum of health care delivery. Students will prepare a position paper that applies course concepts to a contemporary issue of relevance to their specific career interests.

**PHAR6615**  
2 credits  
**Pharmaceutical Marketing and Product Development**  
This course surveys sales and marketing practices, constraints and promotion tools in the

*Distance learning course.*
of industry specialization. Prerequisites: PHAR6601 Health Care Systems and Policy and PHAR elective.

PHAR6800 1–2 Credits
Graduate Independent Study
Studies in area of discipline with departmental approval.

PHAR7715 2 credits
Topics in Current Developments
Current issues, ideas and problems of interest to the pharmaceutical and chemical industries. An emphasis on the use of current literature, the participants in current issues, specialists and intervention by government authorities. Enrollment by special permission only.

TAX6621 3 Credits
Advanced Federal Tax: Individual Income Taxation
This course is designed to introduce the student to the case method and the use of the Internal Revenue Code as a foundation for tax research and planning. Substantively, the course examines gains and losses, basis rules, capital assets, section 1231, taxation of capital transactions, depreciation and recapture, interest, charitable contributions and tax aspects of divorce. Prerequisite: ACCT6605 Federal Tax I: Individual.

TAX6622 3 Credits
Advanced Corporate Tax I
This course introduces the study of corporate taxation. It covers the tax aspects of incorporation, financing the entity, distributions, redemptions and liquidations. Corporations also are covered, as well as the alternative minimum tax and computation of taxable income and tax. Prerequisite: ACCT6606 Federal Tax II: Business Entities.

TAX6625 3 Credits
Estate and Gift Taxation
The study of transfer taxes during life and death. Concepts such as gross and taxable estate and gifts will be explored in detail. The course covers inclusions, deductions, valuations, exemptions, credits and tax computations for gifts and estates.

TAX6670 3 Credits
Tax Accounting
The study of tax law as it pertains to the timing and treatment of tax items. Topics will include the cash and accrual method for income tax, installment sales, inventories (including unicap), changes in accounting methods, the tax benefit rule, accounting periods, time value of money and the annual accounting period.
International Corporate Taxation or permission from the director of the tax program in consultation with the course professor.

TAX7711
3 Credits
International Tax III: Special Topics
This third course for international tax specialists provides a comprehensive review of international structuring and reorganizations, including use of hybrid entities. In addition, there is coverage of the U.S. transfer pricing rules and sourcing rules related to produced inventory. Prerequisites: TAX7710 International Tax II: Outbound and TAX7725 Advanced Corporate Tax II.

TAX7723
3 Credits
Estate and Gift Tax Planning
This course explores estate planning for gifts and other transfers by use of various techniques. Planning for business and other wealth transfers among family members will be highlighted. Topics will include marital deduction, split gifts, life insurance, charitable gifts, use of trusts and planning for estate liquidity. Prerequisite: TAX6625 Estate and Gift Taxation.

TAX7724
3 Credits
Tax Practice and Procedure I
A study of Subtitle F of the Code, dealing with tax procedures applicable to individuals and businesses. Topics include IRS organization, tax aspects of returns, administrative rulings and position statements, civil litigation in tax and district court, statutes of limitations, various types of assessments, waivers, overpayment and refunds, interest and civil penalties. The course also will include a study of Circular 230, professional responsibility and penalties that apply to practitioners.

TAX7725
3 Credits
Advanced Corporate Tax II
A continuation of TAX6622 Advanced Corporate Tax I, this course covers corporate acquisitions and dispositions, including both taxable transactions and nonrecognition reorganizations. The course examines acquisitive reorganizations in depth, followed by reorganizations within a single corporation and divisive reorganizations. Topics include the judicial doctrine of business purpose, step transaction and continuity of interest. The course ends with a study of the transfer and survival of corporate tax attributes after reorganization. Prerequisite: TAX6622 Advanced Corporate Tax I.

TAX7726
3 Credits
Compensation: Executive Compensation and Nonqualified Plans
A study of the tax aspects of various forms of executive and employee compensation. The major focus of the course will be on nonqualified plans. The course covers various compensation techniques, including traditional deferred compensation arrangements, nonqualified stock options, stock appreciation rights, phantom stock plans, stock awards, restricted stock plans, excess benefit arrangements, rabbi trusts, split-dollar plans and severance-pay plans.

TAX7727
3 Credits
Advanced Federal Tax: Property Transactions
This course concentrates on the tax aspects of acquisitions and dispositions of property. Topics will include like-kind exchanges, involuntary conversions, assignment of income doctrine, disposition of residence, cancellation of indebtedness and limitation on losses, such as at-risk rules and passive activity rules, hobby losses, home office and net operating losses (NOL). Prerequisite: ACCT6605 Federal Tax I: Individual.

TAX7728
3 Credits
Partnership Taxation
The study of the federal taxation of partnerships and partners. The course covers formation, operation and liquidation of a partnership, including the acquisition of partnership interests, compensation of a service partner, treatment of partnership distributions, basis, allocations, liquidations and problems associated with the disposition of partnership interests or property by sale. Prerequisites: ACCT6606 Federal Tax II: Business Entities, TAX6621 Advanced Federal Tax: Individual Income Taxation and TAX7727 Advanced Federal Tax: Property Transactions.

TAX7730
3 Credits
Income Taxation of Estates and Trusts
A study of the federal income taxation of estates and trusts (grantor, simple and complex). The course analyzes tax consequences to fiduciaries, beneficiaries, grantors and other parties from inception through termination. Topics include general rules for taxation, fiduciary accounting income, distributable net income, income distribution deduction, computation of taxable income, various distributions and income in respect of a decedent.

TAX7732
3 Credits
Tax Practice and Procedure II
A complete review of procedures and strategies involved in the audit, appeal and collection process. Other topics include liens and levies, offers in compromise, installment agreements, closing agreements, summons enforcement, IRS investigatory powers and criminal aspects of the tax laws. Prerequisite: TAX7724 Tax Practice and Procedure I or permission from the director of the tax program.

TAX7734
3 Credits
Consolidated Returns
This course covers in depth the most important aspects of the current consolidated return regulations. Topics include intercompany transactions with a detailed study of both the matching principle and acceleration rules, loss disallowance rules, consolidated Section 382, investment adjustments in the basis of the stock of subsidiaries, excess loss accounts and allocation of consolidated tax liability to members of an affiliated group. Class discussions emphasize working through important examples contained in the regulations. Prerequisites: TAX6622 Advanced Corporate Tax I and TAX7725 Advanced Corporate Tax II.

TAX7735
3 Credits
Tax-exempt Organizations
This course covers the formation, operation and taxation of tax-exempt organizations. Emphasis will be placed on the qualification process for tax exemption, the unrelated business tax and the special “excise” taxes on private foundations. Compliance requirements also are reviewed.

TAX7736
3 Credits
State and Local Taxation: Constitutional Issues
This foundation course examines the constitutional limits on states’ rights to impose various forms of taxation on income, capital and transactions of individuals and multistate businesses. Topics include nexus, constitutionally acceptable income-allocation methods and strategies for avoiding unnecessary taxation by nondomiciliary states.

TAX7738
3 Credits
Compensation: Qualified Pension and Profit-sharing Plans
A study of qualified compensation arrangements, including pension and profit-sharing plans. The course covers plan selection, qualification requirements, limitations on contributions, benefits, deductions and funding, nondiscrimination, taxation of distributions, rollovers, minimum distributions, incidental benefits, spousal rights,
multiple-entity structure, reporting and disclosure, prohibited transactions and fiduciary responsibility.

TAX7750
3 Credits
State and Local Taxation: Corporate and Individual Income Taxation
A study of the major income and franchise tax issues confronting nonresident individuals, pass-through entities, nonresident shareholders of S corporations and multistate and multinational corporate businesses covered in the context of current litigation and rule-making at the state and local levels. The course also explores tax-planning opportunities for the multistate business and the use of transfer pricing in state and local income tax matters. Individual income taxation and the interaction between the state and federal systems also are discussed. Special attention is paid to tax systems used in New York and New Jersey.

TAX7752
3 Credits
State and Local Taxation: Sales, Use and Property Taxes
This course examines the sales, use and property tax schemes prevailing in the United States. Sales and use tax constitutes roughly 33 percent of all state tax collections, whereas property tax constitutes about 50 percent. The course examines the definition of a sale, the nuances relative to a manufacturing and construction, the power of the states to assert jurisdiction over aspects of a transaction occurring beyond their borders and exemptions. Relating to property tax, the course examines State Constitutional Principles of Uniformity and Equal Protection, approaches to valuation, exemption and incentives. Special attention is paid to tax systems used in New York and New Jersey. Other common levies also may be covered.

TAX8850
3 Credits
Taxation of Financial Products
This course focuses on the taxation of financial instruments, products and transactions. It begins by covering basic principles, including financial terminology, types of market participants, as well as the tax concepts of timing, character and source. It then proceeds with a study of the detailed rules regarding tax treatment of financial instruments including stocks, bonds, options, forward contracts, futures contracts, convertible and contingent payment instruments, swaps, as well as hybrid instruments. Tax issues that will be addressed include wash sales, constructive sales, short-sale rules, straddles, market discount, original issue discount, Section 1256 and notional principal contract regulations. International tax and reporting issues will also be covered.

TAX8860
3 Credits
Accounting for Income Taxes (ASC 740/FAS 109/FIN 48)
This course provides an in-depth analysis of the financial accounting for income taxes under U.S. Generally Accepted Accounting Principles (GAAP). The course begins with a conceptual framework and then discusses such practical applications as computing the tax provision, effective tax rate, quarterly and annual reporting and financial disclosures for income taxes. All major elements of ASC 740 (FAS 109) are considered, as are related pronouncements such as (pre-codification) FIN 48, APB 28, FIN 18 and other accounting guidance. Emphasis will be given to practical application of the accounting standards to “real-world” situations.

Chemistry (M.S.)
This program is offered at both the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey. These programs are listed by campus on pages 84 through 90.
Chemistry (M.S.)

Florham Campus

The Master of Science in chemistry program provides training for those who wish to advance their careers in research, industry, government service or teaching. In addition to advancing students toward a doctoral program, the program also provides courses of interest to industrial chemists who already may hold advanced degrees. In addition to full-time faculty, the department of chemistry and pharmaceutical science draws part-time faculty from local industries, allowing a broader range of offerings.

This program is offered under the auspices of the department of chemistry and pharmaceutical science, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admission Requirements

1. Graduation from an accredited college or university.
2. Satisfactory completion of a minimum of 24 credits in undergraduate chemistry with laboratory work, including physical and organic chemistry, a working knowledge of calculus and one year of physics with laboratory.
3. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. (The GRE requirement is waived for applicants who have completed a master's degree.)
4. Three letters of recommendation.
5. Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Science Degree

1. Satisfactory completion of a minimum of 32 credits in courses prescribed or approved for the degree of Master of Science in chemistry.
2. Compliance with the minimum course requirements listed in the next column.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6613</td>
<td>Advanced Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM6673</td>
<td>Physical Organic Chemistry</td>
</tr>
<tr>
<td>CHEM6781</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHEM6805</td>
<td>Graduate Seminar</td>
</tr>
<tr>
<td>CHEM7771</td>
<td>Advanced Organic Synthesis</td>
</tr>
</tbody>
</table>

Two of the following three courses:
- CHEM6641 Quantum Chemistry
- CHEM6651 Chemical Thermodynamics
- CHEM7751 Chemical Kinetics

Other Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6801, CHEM6802 Research and Thesis (Optional)* — 3 credits each semester</td>
<td>6</td>
</tr>
<tr>
<td>CHEM6803 Thesis Seminar (Optional)**</td>
<td>1</td>
</tr>
</tbody>
</table>

Pharmaceutical Chemistry Concentration

The Master of Science in chemistry with a concentration in pharmaceutical chemistry is intended to serve the needs of the pharmaceutical industry in the North Jersey area. With the help of experienced industrial adjunct faculty, the department provides a rigorous and flexible course of study in this important area.

The program is intended for professionals in the pharmaceutical industry wishing to advance their skills and credentials. Financial assistance in the form of teaching assistantships and research scholarships is not available.

*a student may substitute 9 credits of additional chemistry courses for the CHEM6801, CHEM6802 Research and Thesis and CHEM6803 Thesis Seminar (total 7 credits) requirements. This makes a minimum of 34 credits in courses for the Master of Science degree when a student elects the nonthesis option.

**Up to 6 credits of graduate courses in a single area outside of chemistry to be approved by adviser may be substituted.
Core Courses (31–36 credits)
31 credits for students with U.S. or Canadian B.A. or B.S. in the area of chemistry or biochemistry, international degrees or degrees in related areas.

Foundational Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM5242</td>
<td></td>
</tr>
<tr>
<td>Physical Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM5803</td>
<td></td>
</tr>
<tr>
<td>Foundations in Chemical Analysis</td>
<td>2</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6663</td>
<td></td>
</tr>
<tr>
<td>Introductory Medicinal Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6673</td>
<td></td>
</tr>
<tr>
<td>Physical Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6683</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6781</td>
<td></td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6805</td>
<td></td>
</tr>
<tr>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CHEM7733</td>
<td></td>
</tr>
<tr>
<td>Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7775</td>
<td></td>
</tr>
<tr>
<td>Pharmaceutical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7775</td>
<td></td>
</tr>
<tr>
<td>Chemical Kinetics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7779</td>
<td></td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses (6 credits)
Select courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6806</td>
<td></td>
</tr>
<tr>
<td>Graduate (Nonthesis) Research in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6830</td>
<td></td>
</tr>
<tr>
<td>Special Topics in Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7747</td>
<td></td>
</tr>
<tr>
<td>Protein Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7765</td>
<td></td>
</tr>
<tr>
<td>Heterocyclic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7771</td>
<td></td>
</tr>
<tr>
<td>Advanced Organic Synthesis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7783</td>
<td></td>
</tr>
<tr>
<td>Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM7891</td>
<td></td>
</tr>
<tr>
<td>Internship/Laboratory Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>PHAR6615</td>
<td></td>
</tr>
<tr>
<td>Pharmaceutical Marketing and Product Development</td>
<td>2</td>
</tr>
</tbody>
</table>

*Up to 6 credits of graduate courses in a single area outside of chemistry to be approved by advisor may be substituted.

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.

Chemistry

Department of Chemistry and Pharmaceutical Science

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CHEM5242</td>
<td></td>
</tr>
<tr>
<td>Physical Chemistry II</td>
<td>3</td>
</tr>
</tbody>
</table>

Foundations in Chemical Analysis

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM5803</td>
<td>2</td>
</tr>
<tr>
<td>Foundations in Chemical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Instrumental methods, including electrochemical methods, spectroscopy (UV/Vis, IR, NMR) and chromatography (GC-MS, HPLC). Computer handling of data and report writing. Corequisite: CHEM7733 Instrumental Analysis.

CHEM6605
3 Credits

Chemical and Pharmaceutical Statistics

This class presents applied statistical procedures and research designs in pharmacology research contexts. The major techniques and methods of analyzing research results commonly published in pharmacology are highlighted. Note: FDU NetID (formerly Webmail) account required.

CHEM6613
3 Credits

Advanced Inorganic Chemistry
Modern theories of bonding, structure, stability of molecules, complexes and reaction mechanisms, using examples drawn from the current literature.

CHEM6651
3 Credits

Theories of Analytical Chemistry
Theoretical principles and applications of selected modern methods of analysis.

CHEM6641
3 Credits

Quantum Chemistry
Fundamental theories of quantum chemistry applied to chemical bonding and molecular structure.

CHEM6651
3 Credits

Chemical Thermodynamics
Principles of classical thermodynamics and an introduction to statistical thermodynamics.

CHEM6665
3 Credits

Introductory Medicinal Chemistry
This course is based on all branches of chemistry, but especially organic chemistry. Its focus is on improving a drug’s therapeutic effect while minimizing its undesirable side effects.

CHEM6673
3 Credits

Physical Organic Chemistry
Current theories of structure and reactivity of organic compounds.

CHEM6685
3 Credits

Pharmacology
A study of drugs, their history, sources, physical and chemical properties, compounding, biochemical and physiological effects, mechanism of action, absorption, distribution in the body and therapeutic uses.

CHEM6757
3 Credits

Neuropharmacology
This course studies the functional neuropharmacology and receptology of the mammalian central nervous system, focusing on the neurochemistry of precursors, synthesis, release and second messenger systems for various neurotransmitter systems as well as the mechanism of action of psychoactive drugs and medications used to treat pain, mental illnesses and disorders such as Parkinson’s disease, Alzheimer’s and epilepsy.

CHEM6759
3 Credits

Radiochemistry
A presentation of radioisotope production, detection and application in chemistry. Statistical and safety aspects of radiation also are included.

CHEM6768
0–3 Credits

Engaging Students in Physical Science Classroom
Students will participate in an interactive workshop course to discuss and explore effective ways to excite and engage students in areas of chemistry, physics and earth science. Note: For Institute for the Enhancement of Teaching Science and Math (IETS M) teachers only.

CHEM6769
0–3 Credits

Curricular Change in Physical Science
The course is offered to support teachers currently involved with the Institute for the Enhancement of Teaching Science and Math.
CHEM6773
3 Credits
Chemistry of High Polymers
A study of natural and synthetic polymers derived from free radical, cationic and anionic polymerizations.

CHEM6775
3 Credits
Chemistry of Natural Products
Chemical and biochemical transformations of selected natural products.

CHEM6781
3 Credits
Biochemistry
Structure and function of biological molecules. (Equivalent to HSCI6781 Biochemistry for the Medical Sciences.)
Fall

CHEM6800
1–3 Credits
Advanced Special Projects:
Chemistry
An in-depth independent study of a problem in chemistry.

CHEM6801, CHEM6802
6 Credits (3 Credits Each Semester)
Research and Thesis
Individual research investigation in an area of chemistry under the supervision of a faculty adviser. Approved thesis must be submitted.

CHEM6803
1 Credit
Thesis Seminar
An oral presentation and defense of thesis before a departmental committee. Prerequisites or corequisites: CHEM6801, CHEM6802 Research and Thesis.

CHEM6805
1 Credit
Graduate Seminar
Chemical literature is reviewed through lectures, library assignments and student seminars. Prerequisite: CHEM5803 Foundations in Chemical Analysis.
Spring

CHEM6806
0–3 Credits
Graduate (Nonthesis) Research in Chemistry
Graduate level, nonthesis research with an adviser in the chemistry and pharmaceutical science department. Prerequisite: undergraduate degree in chemistry.

CHEM6830, CHEM6831, CHEM6832, CHEM6833
3 Credits
Special Topics in Chemistry

CHEM7733
3 Credits
Instrumental Analysis
Applications of spectroscopy, electrochemistry and chromatography to chemical problems, with particular emphasis on comparison of methods and interpretation of experimental data.
Fall

CHEM7755
3 Credits
Pharmaceutical Analysis
The analytical chemistry unique to pharmaceutical compounds from the viewpoint of a pharmaceutical scientist.

CHEM7747
3 Credits
Protein Chemistry
The chemistry and physical properties of amino acids, peptides and proteins; the three-dimensional structure of proteins; protein function in enzymes, biological membranes, connective tissues, oxygen transport and storage; biosynthesis of proteins in muscle contraction, membrane transport, sensory systems, hormones and the immune response.

CHEM7751
3 Credits
Chemical Kinetics
Theory of homogeneous and heterogeneous reactions, factors influencing reaction rates, theory of absolute rates, chain reactions, catalysis. Prerequisite: CHEM5242 Physical Chemistry II.

CHEM7753
3 Credits
Pharmacokinetics
The study of the rate of change of drug concentration in the body. Understanding the absorption, distribution, biotransformation and excretion of drugs is used in the design and optimization of drug formulations and dosage regimens.

CHEM7765
3 Credits
Heterocyclic Chemistry
A discussion of the preparation and chemical properties of mono- and polycyclic compounds containing oxygen, nitrogen and sulfur atoms. Those of biological interest also will be discussed.

CHEM7771
3 Credits
Advanced Organic Synthesis
A study of selected synthetic organic reactions. (Equivalent to HSCI7771 Advanced Organic Synthesis.)

CHEM7783
3 Credits
Biochemistry II
Continues the study of the molecular basis of life. Topics include more details and discussions

CHEM7785
3 Credits
Physical Biochemistry
The physical chemistry of biological macromolecules and systems of biochemical interest.
Chemistry (M.S.)

Metropolitan Campus

The School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey, offers a Master of Science in chemistry with concentrations in informatics and pharmaceutical chemistry. This focused concentration is designed to fulfill the practical and intellectual needs of chemists pursuing research and development careers within the pharmaceutical industry. For those without industrial experience, the programs can help launch a career in the pharmaceutical industry. It is also geared to current technologists aspiring to supervisory roles in the laboratory or plant. To accommodate part-time students who are already working in the industry, classes are offered in the evenings.

Admission Requirements

1. Graduation from an accredited college or university with a baccalaureate degree in an allied science (biology, chemistry, biochemistry or pharmacy).

2. Satisfactory completion of a minimum of 24 credits in chemistry including a two-semester sequence of organic and physical chemistry.

3. Submission of the general Graduate Record Examinations (GRE) scores and three letters of recommendation.

4. A minimum score of 550 (paper-based) or 213 (computer-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) is required for all applicants whose native language is not English.

Note that financial assistance in the form of teaching assistantships and research scholarships is not available.

Informatics Concentration

This concentration is an interdisciplinary program including training not only in chemistry but also in applied statistics and computer science. Students will complete graduate course work in chemistry, biology and mathematics.

Graduates of this concentration will be able to use information technology to improve productivity and success rates in pharmaceutical research. They will develop and evaluate new chemical research strategies by analyzing or mining large amounts of data available in drug discovery, public health, clinical research and genomics databases. Since informatics is a rapidly evolving field, there are career opportunities in the pharmaceutical industry as well as in academic research.

To accommodate part-time students already working in the industry, classes are offered on an evening schedule.

Chemistry Core Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6525</td>
<td>Physical Chemistry</td>
</tr>
<tr>
<td>CHEM6673</td>
<td>Physical Organic Chemistry</td>
</tr>
<tr>
<td>CHEM6781</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHEM7713</td>
<td>Structural Inorganic Chemistry</td>
</tr>
</tbody>
</table>

Informatics Concentration Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL6743</td>
<td>Topics in Bioinformatics</td>
</tr>
<tr>
<td>BIOL6744</td>
<td>Lab: Topics in Bioinformatics</td>
</tr>
<tr>
<td>CHEM6751</td>
<td>Pharmaceutical Discovery Informatics</td>
</tr>
<tr>
<td>CHEM6752</td>
<td>Drug Design and Discovery</td>
</tr>
<tr>
<td>CHEM6755</td>
<td>Medicinal Chemistry</td>
</tr>
<tr>
<td>CHEM7737</td>
<td>Chemical Analysis of Pharmaceuticals</td>
</tr>
<tr>
<td>MATH6729</td>
<td>Statistical Programming</td>
</tr>
<tr>
<td>MATH6737</td>
<td>Applied Statistics I</td>
</tr>
</tbody>
</table>

Pharmaceutical Chemistry Concentration

This focused concentration is designed to fulfill the practical and intellectual needs of chemists pursuing research and development careers within the pharmaceutical industry. For those without industrial experience, the programs can help launch a career in the pharmaceutical industry. It is also geared to current technologists aspiring to supervisory roles in the laboratory or plant. To accommodate part-time students who are already working in the industry, classes are offered in the evenings.

Pharmaceutical Chemistry Concentration Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6754</td>
<td>Drug-delivery Systems</td>
</tr>
<tr>
<td>CHEM6755</td>
<td>Medicinal Chemistry</td>
</tr>
<tr>
<td>CHEM7737</td>
<td>Chemical Analysis of Pharmaceuticals</td>
</tr>
<tr>
<td>COMM5000 or higher</td>
<td>Communication Requirement</td>
</tr>
</tbody>
</table>

Free Electives (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL6733</td>
<td>Enzymology</td>
</tr>
<tr>
<td>BIOL6840</td>
<td>Cell Culture</td>
</tr>
<tr>
<td>BIOL6900</td>
<td>Biology Seminar</td>
</tr>
<tr>
<td>CHEM6752</td>
<td>Drug Design and Discovery</td>
</tr>
<tr>
<td>CHEM6773</td>
<td>Polymer Chemistry</td>
</tr>
<tr>
<td>CHEM7733</td>
<td>Instrumental Analysis</td>
</tr>
<tr>
<td>MATH6729</td>
<td>Statistical Programming</td>
</tr>
<tr>
<td>MATH6738</td>
<td>Applied Statistics II</td>
</tr>
<tr>
<td>PHAR6615</td>
<td>Pharmaceutical Marketing and Product Development</td>
</tr>
<tr>
<td>PHAR6650</td>
<td>Management of Production, Purchasing and Quality Control in the Pharmaceutical Industry</td>
</tr>
</tbody>
</table>

Credits
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.

Chemistry
School of Natural Sciences

CHEM6525
3 Credits
Physical Chemistry
Principles of thermodynamics, kinetics, quantum chemistry, statistical mechanics, spectroscopy and molecular structure. Assumes prior knowledge of MATH2202 Calculus II or equivalent.

CHEM6526
3 Credits
Product Development
Principles of research and development of new products from ideation to market distribution. An overview of the product-development process from the perspective of the cosmetic chemist, from project inception through manufacturing.

CHEM6529
3 Credits
Microtoxicology and Biochemistry
Relationships between microorganisms, toxicity and cosmetic products. The application of principles of biochemistry and toxicology as they relate to and impact on both microorganisms and human metabolism. Fall

CHEM6546
3 Credits
Lecture
Perfumery
The history, raw materials, development and marketing of fragrances.

CHEM6615
3 Credits
Advanced Inorganic Chemistry
Modern theories of bonding, structure, stability of molecules, complexes and reaction mechanisms, using examples drawn from the current literature.

CHEM6631
3 Credits
Advanced Analytical Chemistry
Physicochemical methods used to effect separations prior to analytical measurements and a study of matter and energy-matter interactions.

CHEM6641
3 Credits
Quantum Chemistry
Fundamental theories of quantum chemistry applied to chemical bonding and molecular structure. Prerequisite: one year of calculus including differential equations.

CHEM6651
3 Credits
Chemical Thermodynamics
Principles of classical thermodynamics and statistical thermodynamics.

CHEM6673
3 Credits
Physical Organic Chemistry
Current theories of the structure and reactivity of organic compounds, including dipole moments, stereochemistry and modern mechanisms.

CHEM6697
1 Credit
Introduction to Research
An individual research investigation in a selected area of chemistry is planned under the supervision of a faculty mentor. Preliminary readings are assigned, and a report outlining the proposed investigation is submitted to the department at the conclusion of the course. Prerequisite: 12 graduate credits in chemistry.

CHEM6751
3 Credits
Pharmaceutical Discovery Informatics
This course introduces how information systems and computer technology interrelate to collect, manipulate and disseminate data and information within the context of pharmaceutical and biotechnology industries. The course examines the concepts, techniques and methods used in the description and analysis of data and in statistical inference.

CHEM6752
3 Credits
Drug Design and Discovery

CHEM6754
3 Credits
Drug-delivery Systems
Theoretical and practical considerations in the development and design of drug-delivery systems.

CHEM6755
3 Credits
Medicinal Chemistry
Principles of absorption, distribution, metabolism and excretion (ADME); drug-protein interactions; concepts of drug targets; and toxicity.

CHEM6761
3 Credits
Advanced Organic Chemistry
Advanced topics in organic chemistry, stereochemistry, organophosphorous-, organoboron-, organosilicon-, organometallic chemistry, significant current developments.

CHEM6773
3 Credits
Polymer Chemistry
Polymerization of vinyl monomers by free radical, cationic and anionic mechanisms; polymerization kinetics; copolymerization; stereospecific polymerization; condensation polymerization; chemistry and properties of vinyl, diene and condensation polymers and rubbers; natural and inorganic polymers.

CHEM6775
3 Credits
Chemistry of Natural Products
Structural and biogenetic relationships of natural products, chemical transformations, stereochemistry and synthesis.

CHEM6830
3 Credits
Special Topics in Chemistry
Topics of current interest in theoretical and applied chemistry. Prerequisite: permission of the department. Course may be repeated in successive years for credit with the permission of the department.

CHEM7713
3 Credits
Structural Inorganic Chemistry
Structural patterns of inorganic molecules and crystals, emphasizing symmetry concepts and the group theory of symmetry operations, with applications of this theory to metal complexes and other compounds.

CHEM7733
3 Credits
Instrumental Analysis
Applications of spectroscopy, electrochemistry and chromatography to chemical problems, with particular emphasis on interpretation of experimental data.

CHEM7735
3 Credits
Pharmaceutical Analysis
The analytical chemistry unique to pharmaceutical compounds from the viewpoint of a pharmaceutical scientist.

CHEM7737
3 Credits
Chemical Analysis of Pharmaceuticals
Analytical chemistry, techniques and methods most commonly used in the pharmaceutical industry.
Clinical Mental Health Counseling

CHEM7747
3 Credits
Protein Chemistry
Chemistry and physical properties of amino acids, polypeptides and proteins; sequence and structure determination; correlation of structure and biological properties; protein biosynthesis.

CHEM7771
3 Credits
Advanced Organic Synthesis
Modern synthetic techniques and procedures, emphasizing the theoretical background of the procedures and preparing the student for advanced research.

CHEM7785
3 Credits
Physical Biochemistry
The physical chemistry of biological macromolecules: osmometry, light scattering, viscosity, ultra centrifugation, electrophoresis and X-ray diffraction. Thermodynamics, electrostatics and acid-base equilibria, with reference to biochemistry. Structure and function of nucleic acids, biorganic chemistry.

CHEM8000
1 Credit
Curricular Practical Training
A Curricular Practical Training (CPT) requirement for work-experience course/independent study registration in most academic programs at FDU. The training experience is integral to the course and the detailed course objectives will be on a separate independent study proposal form. The student's work or training experience will be part-time (20 hours or less per week) or full-time (more than 20 hours per week). A non-letter grade of P for Pass or NC for No Credit will be applied to degree audit as this course will be excess credit and not counted toward a degree requirement.

PHYS6753
3 Credits
Applied Colloid and Surface Science
The technical aspects of emulsions, solubilized systems, foams and dispersions. Structure and dynamics of complex systems. Polyphase equilibrium, phase transitions and kinetic distributions. The physics of interfaces and effects of surface structure. Principles of colloid science along with practical procedures as applied in cosmetic formulations, including examples.

Clinical Mental Health Counseling (M.A.)

The clinical mental health counseling program, accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), prepares its graduates for the professional practice of counseling in a variety of work settings such as universities, community agencies, clinics, hospitals, drug abuse centers, child protective services, private practice, business and industry. The program also prepares highly competent counseling professionals — including entry- and advanced-level counselors, counseling researchers and counseling administrators — to have a significant impact on the mental health field as counselors, program directors, researchers, grant writers and policy makers on the local, state and national levels. With those goals in mind, the curriculum focuses on a broad spectrum of issues including: assessing, treating or working to ameliorate a disability, problem or disorder; the antecedent conditions that predispose people to developmental, emotional, personality or relationship problems experienced by individuals, couples, families or groups; the nature and treatment of those disorders, crisis-intervention strategies; and the influence of various family and group dynamics, gender differences, cultural diversity, social problems and age on the emergence of various problems and symptoms.

Students will be trained to conduct intake and assessment interviews, to develop treatment plans and counseling interventions and to function as an ethical and competent counselor. Students also will acquire a knowledge of research and assessment techniques and the pragmatic concerns (e.g., managed care and budget constraints) facing the mental health field today.

In order to apply what they have learned in the classroom, students will, in consultation with and with the approval of the coordinator of practicum/internship, procure a practicum and internship site and complete 100 hours of practicum and 600 hours of internship at a mental-health counseling site. Experiences will be arranged with the coordinator of practicum/internship, and the student will be supervised both "on-site" and on campus by licensed personnel.

The M.A. in clinical mental health counseling is a 60-credit degree. To meet the requirements of New Jersey licensure as a licensed professional counselor (LPC), students must complete 60 credits. To meet the requirements for the student assistant coordinator (SAC), students must complete 24 graduate credits.

This program is offered under the auspices of the department of psychology and counseling, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admission Requirements
1. Graduation from an accredited college or university.
2. If a person's undergraduate degree was in psychology (with a minimum of 12 credits in psychology), he/she must have completed at least one course in statistics and experimental psychology, and have a minimum grade point ratio (GPR) of 3.50 in the psychology major and a 3.00 overall GPR.
3. If a person's undergraduate degree was not in psychology, he/she must successfully complete an undergraduate general psychology course or a graduate advanced general psychology course with a grade of B or better.
4. Submission of undergraduate transcripts.
5. Submission of three letters of recommendation.
6. A written personal statement of professional goals.
7. Completion of a Fairleigh Dickinson Graduate School application form.
8. A personal interview, which will be scheduled after the application is submitted, is required.

Requirements for the Master of Arts Degree

Required Professional Core Courses in Counseling

Credits

COUN7700
The Counseling Profession: History and Theories.......................... 3
COUN7701
Counseling Skills and Practices.............3
COUN7702
Diagnosis/Treatment Planning
(in Counseling).......................... 3
Clinical Mental Health Counseling

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.

Clinical Mental Health Counseling
Department of Psychology and Counseling

COUN7700
3 Credits
The Counseling Profession: History and Theories
This course will acquaint students with the profession of counseling. This is the introductory graduate course in counseling which provides a general overview and survey of the profession. Students will explore their personal motivation and interest in a counseling profession as well as integrate professional concepts with personal style. Emphasis is placed on the development of professional identity, standards in the profession, accreditation and credentialing, counseling theory, application and ethics. Roles and responsibilities of counselors across a variety of settings will be addressed. The course should be taken concurrently with COUN7701 Counseling Skills and Practices.

COUN7701
3 Credits
Counseling Skills and Practices
This is a competency-based course with experiential emphasis which addresses basic skills and techniques of counseling. Students will be able to demonstrate basic counseling skills, techniques and professionally ethical and legal behavior; accurately critique one's own level of skills development; explain how one's life experiences have led him/her to the profession of counseling; and increase one's self-awareness of interpersonal dynamics. The student is required to demonstrate proficiency in counseling skills, concepts and techniques before proceeding to COUN7705 Group Counseling. COUN7709 Multicultural Counseling and COUN7901 Practicum. The course should be taken concurrently with COUN7700 The Counseling Profession: History and Theories.

COUN7702
3 Credits
Diagnosis/Treatment Planning (in Counseling)
A consideration of the etiology, treatment and prevention of psychopathology. An exploration of the most frequently appearing abnormal behaviors in American culture, such as psychosomatic disorders, alcoholism, drug addiction, character disorders, psychoses and disorders associated with brain pathology. Recent research in this area and its practical applications will be emphasized.

COUN7703
3 Credits
Development Across the Life Span
This course is an introduction to theories and patterns of development from conception through late adulthood, emphasizing early childhood and adolescence. The focus is on growth and development of sensory, motor, language, cognitive, emotional and social processes. Individual, family and environmental factors which affect development throughout the life span are explored.

COUN7704
3 Credits
Crisis Intervention
A form of brief therapy, focusing on stress-induced reactions studied in historical and theoretical contexts. Course will cover treatment of family conflicts, child abuse, divorce, illness, substance abuse and national disasters. Prevention techniques and evaluation of services also are discussed.

COUN7705
3 Credits
Group Counseling
This course covers the therapeutic nature of the group process by drawing from counseling, social, psychological and psychotherapeutic literature. The many approaches to counseling, ranging from encounter to more traditional methods, are discussed in depth. Classroom process is used as a demonstration of group process.

COUN7706
3 Credits
Lifestyle and Career Counseling
This course introduces strategies for career planning and counseling (e.g., skills and interest assessment and values clarification). The course provides an understanding of career-development theories, lifestyle and career decision-making and career-development program planning. It includes important components such as enhancing the client's sense of self-esteem and self-efficacy and career and leisure counseling.

COUN7707
3 Credits
Family Systems and Counseling
This course will examine the broader context of a client's life to include families, schools, work groups, religious institutions and other significant organizations. Its primary goal is to promote an understanding of family-development structure, history and process to aid in the assessment, intervention and treatment of psychological problems and other dysfunctional behaviors. Emphasis will be on understanding the family, forming a therapeutic system, exploring areas of dysfunction and initiating a change process.

*See Education Course Offerings.
**The student will register for the comprehensive exam in the next to final or final semester of the program.
Clinical Mental Health Counseling

COUN7708
3 Credits
Appraisal of Individuals: Assessment and Measurement
A critical survey of the philosophy and techniques of measurements and appraisal, with emphasis given to the administration, interpretation and evaluation of intelligence, achievement, interest, aptitude and objective personality instruments.

COUN7709
3 Credits
Multicultural Counseling
This course builds on previous assessment and counseling skills to consider the systemic and cultural issues that influence an individual's world view and life experience. An in-depth exploration of cultural heritage and multidimensional (racial/gender/class/religious) identify development in relation to the therapeutic relationship. The goal is to develop the skills of a culturally competent counselor.

COUN7710
3 Credits
Behavioral Research
The goals of this course are to acquaint the student with the basic premises of scientific investigation, the major methods of conducting psychological research and the statistical procedures employed in analyzing data. The methodological section includes experimental design, questionnaire construction and interviewing strategies, field projects, evaluation research and survey techniques.

COUN7711
3 Credits
The Professional Counselor: Ethical Issues
This course will focus on issues that counselors and supervisors face due to their professional roles. It includes topics such as ethics, ACA (American Counseling Association) guidelines, supervisory challenges and the pressures from public policy and managed-care decisions.

COUN7715
3 Credits
Addictions Counseling
This course is designed to review the etiology, diagnoses and treatment of alcohol and drug addiction. Ethical considerations and philosophy of treatment are discussed. The physiology and pharmacology of alcohol and drugs are also covered.

COUN7714
3 Credits
Psychopharmacology
Study in the relationship between drugs and behavior, especially maladaptive behavior, and research in human biochemical changes.

COUN8700
3 Credits
Program Planning and Evaluation: Prevention and Education
The course provides an overview of the approaches to the planning, formulation and evaluation of programs in various community and industrial settings, principles and applications of needs assessment and use of research findings to inform programs and policy-level decision making. The course also covers the issues that must be addressed in designing effective prevention and education programs. Planning of realistic service delivery with built-in evaluation components, survey research.

COUN8706
3 Credits
Counseling: Sexual Issues
This is an advanced counseling course that focuses on the diagnosis and treatment of sexual issues. The range of topics include psychosexual issues and the gay, bisexual and transvestite/transsexual client. Dealing with sexual dysfunction for the individual and in a relationship is explored.

COUN8710
3 Credits
The Counseling Profession: Ethics and Standards of Practice
This course is designed to promote the importance of understanding and embracing the professional identity of the counselor. It introduces the students to the ethical and legal issues that challenge counselors in today's complex society. It reviews ethical codes and standards of practice for the professions of the American Counseling Association (ACA), American School Counselor Association (ASCA) and American Mental Health Counselors Association (AMHCA).

COUN9701
3 Credits
Practicum
A course designed to be a transitional experience from the graduate counseling classroom to the professional-counselor role in a mental health setting. Students engage in a clinical experience appropriate to their level of professional development. Class includes didactic and experiential activities and supervision of field experience. Requires 100 hours with 40 direct-client contact supervised by on-site mental health professionals.

COUN9702
3 Credits
Internship I
Following successful completion of their practicum, students complete a supervised 600-hour (240-hour direct contact) field experience in a clinical setting. Interns are supervised by an on-site mental health professional and on campus in weekly group supervision by University faculty. The goal is integration of intake assessment, case conceptualization, treatment planning, case management and counseling skills as a professional counselor. Course will be pass/fail. Prerequisite: COUN9701 Practicum.

COUN9703
3 Credits
Internship II
This course is the second half of an already established course of field placement for counseling students. The student must complete a minimum of 300 hours in the field for the course. Course will be pass/fail. Prerequisites: COUN9701 Practicum and COUN9702 Internship I.

COUN9704
3 Credits
Internship III
This course is for students who are unable to complete their 600 hours of internship in two semesters. Prerequisites: COUN9701 Practicum, COUN9702 Internship I and COUN9703 Internship II.

COUN9800
3 Credits
Fundamentals of Supervision in Counseling
This course will provide a summary and critique of the literature in counselor supervision. The course will focus on defining and conceptualizing various supervision models; the dynamics of supervisory relationship and counselor development; supervision methods and techniques; and multicultural and ethical concerns. Prerequisites: COUN9701 Practicum, COUN9702 Internship I, COUN9703 Internship II and permission of the department chair.

COUN9900
0 Credits
Comprehensive Exam
The student will register for the comprehensive exam in the final semester of the program.

COUN9901
0 Credits
Comprehensive Exam II: Electronic Portfolio Review
Capstone requirement for M.A. in clinical mental health counseling program. The student will present a portfolio representative of learning objectives throughout the clinical mental health counseling program.

COUN9990
3 Credits
Clinical Supervision for Supervisors
This course provides a summary and critique of the literature on counselor supervision. The focus will be on defining and conceptualizing various supervision models, discussing the dynamics of the relationship between supervisor and supervisee and developing supervisory forms. Issues such as multicultural concerns and techniques of supervision will be discussed as well.
Clinical Psychology • Clinical Psychopharmacology • Communication

Clinical Psychology (Ph.D.)
See Psychology, Clinical Psychology, page 208.

Clinical Psychopharmacology (Postdoctoral M.S.)
See Clinical Psychopharmacology (Postdoctoral M.S.), page 212.

Communication (M.A.)
The M.A. in communication is offered by the department of communication studies in the Maxwell Becton College of Arts and Sciences at the Florham Campus, Madison, New Jersey. The program offers continuing students and returning professionals a theory-based curriculum that incorporates communication principles and practices into applied learning in cultural, interpersonal and public contexts. The program’s mission is to produce critically informed and creative graduates who will be competitive contributors to a challenging global workplace. Courses emphasize the development of skills in critical thinking, collaboration, leadership, ethics, interpersonal relations and cultural intelligence, as well as enhancing students’ professional writing and presentation skills.

Admission Requirements
1. A bachelor’s degree from an accredited college or university.
2. A cumulative undergraduate grade point ratio (CGPR) of at least 3.00 on a scale of 4.00.
3. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if:
   a) the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits with a minimum CGPR of 3.00 and no grade below B;
   b) the applicant is a Fairleigh Dickinson University communication studies major enrolled in the five-year B.A./M.A. program and has an undergraduate CGPR of 3.00;
   c) the applicant is a non-Fairleigh Dickinson University student who has an undergraduate CGPR of 3.50 or higher; or
   d) the applicant has completed a master’s degree.
4. An essay articulating the prospective student’s goals and expectations and the relationship of those goals and expectations to the program.
5. Two recent letters of recommendation.

Requirements for the Master of Arts Degree
1. The completion of a minimum of 30 credits.
2. The completion of the six required courses with a minimum grade of B in all six.
3. Students must complete three context courses, one each in the cultural, interpersonal and public contexts.
4. A minimum overall CGPR of 3.00.
5. The successful completion of the capstone experience.

Basic Requirements

Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MCOM6001</td>
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<tr>
<td>Principles and Practices of Communication</td>
<td></td>
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<tr>
<td>MCOM6002</td>
<td>3</td>
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<tr>
<td>Professional Writing and Editing</td>
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<tr>
<td>MCOM6003</td>
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<tr>
<td>Presentation Methods</td>
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<tr>
<td>MCOM6004</td>
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<tr>
<td>Executive Lectures</td>
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<tr>
<td>MCOM6005</td>
<td>3</td>
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<tr>
<td>Group Communication and Leadership</td>
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<tr>
<td>MCOM6006</td>
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<tr>
<td>Research Methods</td>
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Capstone Experience (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MCOM6099</td>
<td>3</td>
</tr>
<tr>
<td>The Capstone Experience: Principles into Practice</td>
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</tbody>
</table>

Context Courses (9 credits)
The following courses will provide students with experience applying principles they learn to communication practices in cultural, interpersonal and public contexts. Students must take one course in each context.

Cultural Context

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>MCOM7001</td>
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<tr>
<td>Communication, Culture and Change</td>
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<tr>
<td>MCOM7002</td>
<td>3</td>
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<tr>
<td>International Communication and Culture (at Wroxton College)</td>
<td></td>
</tr>
<tr>
<td>MCOM7003</td>
<td>3</td>
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<tr>
<td>Communication and Globalization</td>
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</table>

Interpersonal Context

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<tbody>
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<td>MCOM7101</td>
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<tr>
<td>Communication and Technology</td>
<td></td>
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<tr>
<td>MCOM7102</td>
<td>3</td>
</tr>
<tr>
<td>Narrative Communication</td>
<td></td>
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</tbody>
</table>
Communication

MCOM7103
Language and Communication............ 3

Public Context
MCOM7201
PR in the Modern Organization........... 3
MCOM7202
Crisis Communication................... 3
MCOM7203
Strategic Communication............... 3

The Global Experience
The M.A. program offers a unique, intensive, 12-day seminar in international communication and culture, held at Wroxton College, Fairleigh Dickinson University’s campus in Oxfordshire, England (MCOM7002 International Communication and Culture). The seminar includes panel discussions and lectures conducted by recognized international experts from business, academia, politics and the media and offers unique insight into professional communication experiences in other parts of the world.

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.

Communication
Department of Communication Studies

MCOM6001
5 Credits
Principles and Practices of Communication
This course introduces new graduate students to foundational theories and essential concepts of communication studies and their application to everyday problems and unique practices they are likely to encounter in their professional lives. Course activities include introduction to the communication studies faculty and their areas of specialization, familiarization with key sources in the discipline and application of course materials to contemporary discourses and interactions.
Fall

MCOM6002
5 Credits
Professional Writing and Editing
This course introduces students to writing techniques in the academic, professional and workplace settings. Students will be required to communicate with clarity of thought and appropriate tone and style. Students will demonstrate their professional writing and editing skills in a variety of assignments. The goals of this course are to acquaint students with professional writing practices, editing and revision procedures and methods for polishing their professional and scholarly writing skills.
Fall

MCOM6003
3 Credits
Presentation Methods
This course emphasizes the design and delivery of oral presentations by and for communication professionals. Lectures, discussions and workshop sessions will consider such topics as brainstorming, audience analysis, gathering and organizing data, citing sources, integrating media, presentation techniques and managing questions and answers.
Fall

MCOM6004
3 Credits
Executive Lectures
The Schering-Plough Executive Lecture Series is a forum in which communication experts and students explore skills such as collaboration, creativity and problem-solving relevant to a wide range of professional settings. Theories and their application to practice will be presented through readings, case studies, lectures and discussions. Students will actively engage in exercises and projects to develop and demonstrate comprehension of course content.
Spring

MCOM6005
3 Credits
Group Communication and Leadership
Organizations function and survive according to the ability of their members, and in particular their leaders, to communicate effectively. This course is an in-depth study of current theories of message-processing in organizations: leadership and followership communication, service leadership, innovation and creativity and more. Course work includes experiential learning that allows students to explore practical applications of theory. The course is as much about developing personal leadership as organizational leadership.
Spring

MCOM6006
3 Credits
Research Methods
This is a survey course examining both quantitative and qualitative approaches to investigating communication problems, practices and phenomena. The course provides students with an introduction to and experience in a diverse range of principles and methods appropriate for conducting research in a variety of professional communication contexts.
Spring

MCOM6099
3 Credits
The Capstone Experience: Principles into Practice
The capstone experience seeks to blend knowledge/theory and application/action. Students will be expected to apply concepts learned during the course of the program toward the completion (i.e. action) of a communication-based project of suitable scope within their own workplace or within another appropriate professional site. In addition to integrating knowledge gained from course work, capstone students must be able to conduct research to determine the viability of the projects they elect to undertake, and in presenting their project, must demonstrate the oral and written communication skills expected of those nearing the completion of a Master of Arts degree in communication. The capstone experience is taught as a blended, three-credit course, and students complete their projects under the supervision of the course instructor. All graduate faculty will be involved in the review of project proposals and final projects.
Fall, Spring

MCOM7001
3 Credits
Communication, Culture and Change
This course analyzes the relationship among communication, change management and organizational culture. Discussions and lectures include: definitions and types of organizational culture, methods for the study of corporate cultures, the essence and functions of organizational culture, diagnosis of corporate culture, managing and auditing communication and culture and perpetuating or reshaping cultures. In addition, the connection between effecting organizational change by transforming the culture is a dominant theme throughout the course.

MCOM7002
3 Credits
International Communication and Culture
This 12-day seminar is offered at Wroxton College, England, each summer and consists of invited speakers, case studies, site visits and leisure trips to London, Stratford-upon-Avon and Oxford. The objective of the seminar is to make students familiar with the cultural, historical and political contexts in which professional and other interactions take place from a U.K. and European perspective. Students will also examine case studies conducted by U.K. media, advertising and public relations practitioners which show how issues of culture, history, politics and theory play out in actual corporate communication practice.
Summer
MCOM7003
3 Credits
Communication and Globalization
This course examines communication in intercultural contexts, both domestic and international. The course focuses on (a) how culture influences the communication process and the development of relationships, (b) the dynamics of intercultural encounters and (c) the impact of globalization on intercultural communication.

MCOM7101
3 Credits
Communication and Technology
This course gets students to think critically about how digital innovations are shaping our communication and aims to help students gain some perspective on the influences that the rapid transition to the digital age have on almost every aspect of society. The class will discuss where society is today technologically speaking (and ask how it got there), but students will spend most of their time trying to figure out what impacts emerging communication technologies have and are likely to have on the essentials of the human condition: on sense of identity as individuals, on how they form and regulate their communities (on- and offline) and on how the nation and world function politically, socially and economically.

MCOM7102
3 Credits
Narrative Communication
This seminar explores a variety of forms narrative communication takes in institutional and professional contexts and considers the multiple functions they may serve for individuals and institutions working in various professions. Students are guided through a selection of theory and methodology offered in required readings and the application of them to exercises. The course culminates with a research project analyzing narrative communication addressing a contemporary problem or crisis.

MCOM7103
3 Credits
Language and Communication
This course draws on contemporary theories of language and social interaction to examine how practices of human communication are designed and used to accomplish the work that people do in a variety of professions. Readings, exercises and assignments train students to analyze how language is used to constitute certain roles, relationships, activities and responsibilities. The approach of the class is pragmatic, microanalytic and highly interactive.

MCOM7201
5 Credits
PR in the Modern Organization
This course will focus on theories, strategies and techniques for organizational public relations. This course specifically examines the dynamic practice of public relations on the organizational level, with particular focus on the publics that organizations serve. Organizations must be proactive and reactive in their public relations practices. The class will cover a variety of topics throughout the course. Each week the class will engage in scholarly readings that deal with a specific topic in public relations.

MCOM7202
3 Credits
Crisis Communication
This course specifically examines the dynamic practice of crisis communication on the organizational level. It seems that people live in a culture of crisis — organizations must be proactive and reactive in their public relations practices. Topics discussed will include image-repair strategies, options available to organizations facing crisis, crisis-management teams, crisis management as a form of public relations and examinations of case studies. Using the most recent scholarship, students will learn about this timely topic in an interactive and engaging environment.

MCOM7203
3 Credits
Strategic Communication
This course examines practices of communication that are goal-oriented, deliberate or purposive. Cases will be studied in which communication is designed and targeted to achieve goals such as running a campaign; building or repairing a reputation; or bringing about social, cultural or institutional change. Course work will explore ways of dealing with real-world challenges in domestic and global contexts of professional communication.

Computer Engineering (M.S.)
Fairleigh Dickinson University’s Master of Science in computer engineering program is designed to train and educate students to work as computer engineers who understand the design tradeoff and the interdependency between hardware and software in computers, computer-based systems, computer communications and computer networks. Computer-based systems are widely used in data acquisition, signal processing and conditioning, instrumentation, communications, control, automation and manufacturing. The curriculum provides students with design skills, theoretical concepts and a solid foundation in both hardware and software design in an integrated manner, as well as competency in advanced computer technology. The program emphasizes practical applications of computer engineering.

This program is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. A Bachelor of Science degree in electrical engineering, computer engineering or computer science from an accredited university. This should include courses or equivalent experience in the following areas: introductory computer programming, digital system design, microprocessor system design and data structures. These courses can be taken at Fairleigh Dickinson University but will not count toward the 30-credit master’s degree requirement. Students with a Bachelor of Science degree in technology or other areas of science and engineering may be admitted if they complete undergraduate prerequisites as determined by an adviser of the school.

2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in computer engineering with a minimum grade point ratio (GPR) of 3.00 and no grade below C or is a graduate of
Computer Science

Fairleigh Dickinson University’s computer science, electrical engineering or closely related programs with an undergraduate GPR of 3.00 or is a graduate of computer science, computer engineering or electrical engineering programs from other institutions with an undergraduate GPR of 3.50. This GRE-waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. (The GRE requirement also is waived for applicants who have completed a master’s degree from a regionally accredited college or university in the United States.)

3. Three letters of recommendation.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Science Degree

Students must successfully complete 30 credits, including 12 credits of core requirements and 18 credits of electives as described below:

Core Requirements (12 credits)

CSCI6620 Software Engineering
CSCI6638 Operating Systems
EENG7701 Logic System Design
EENG7702 Microprocessor Design*

Electives (18 credits)

6 credits from the following:

CSCI6623 Database Systems
CSCI6730 Advanced Network: TCP/IP and Routing
CSCI6731 Computer Networks**
CSCI6732 Local Area Networks
CSCI7645 Systems Programming
CSCI7871 Unix Shell Programming

6 credits from the following:

EENG6610 Computer-aided Analysis and Design
EENG6633 Digital Signal Processing
EENG6747 Digital Communications
EENG7706 Robotics Engineering
EENG7707 Neural Networks and Fuzzy Logic Systems

EENG7737 Computer Communication Networks*
EENG7773 Digital Image Processing
6 additional credits from computer science or electrical engineering courses (6000-level and higher) must be taken.

Students may register for CSCI8891 Internship/Work Experience or EENG8891 Internship/Work Experience only after completing 18 graduate credits.

Telecommunications and Networking Certificate

Admissions requirements and requirements for the certificate are provided in the Computer Science section (page 98).

Course Offerings


Computer Science (M.S.)

The graduate program in computer science prepares students for the direct pursuit of productive careers in industry and for continued graduate study. The program's orientation is toward educating professionals to become leaders in various areas of computer science ranging from software engineering to computer design, and from systems analysis to the management of information systems.

The M.S. in computer science program is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey. The program is offered full-time at the Metropolitan Campus, Teaneck, New Jersey, and part-time at the Florham Campus, Madison, New Jersey.

Admission Requirements

1. Graduation from an accredited college or university with a satisfactory academic record.

2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in computer science with a minimum cumulative grade point ratio (CGPR) of 3.00 and no grade below C, or is a Fairleigh Dickinson University computer science graduate with an undergraduate CGPR of 3.00 or is a non-Fairleigh Dickinson University computer science graduate with an undergraduate CGPR of 3.50. This GRE-waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. (The GRE requirement also is waived for applicants who have completed a master’s degree.)

3. Three letters of recommendation.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

*Students may substitute EENG7709 Embedded Systems.
**Either EENG7737 Computer Communication Networks or CSCI6731 Computer Networks may be taken, but not both.
*Either EENG7737 Computer Communication Networks or CSCI6731 Computer Networks may be taken.
Requirements for the Master of Science Degree

1. Students must complete 42 credits in approved graduate courses. The 42 credits are distributed as follows: 12 credits of prerequisite courses, 15 credits of core requirements and 15 credits of electives. Students with backgrounds in the field may reduce the number of required credits by having some, or all, of the prerequisite courses waived. In any event, a minimum of 30 credits will be required for the degree. Requests for waivers must be made in writing to the department prior to the student's first semester.

2. Students must earn a cumulative grade point ratio (CGPR) of at least 2.75 for the prerequisite courses if required or be subject to dismissal from the program. Students may take no more than 6 credits of core or elective courses before completing all of the prerequisites.

3. Students must earn a CGPR of at least 2.75 for the 30 credits beyond the core or elective courses before completion of the degree. Requests for waivers must be made in writing to the department prior to the student’s first semester.

Prerequisite Courses (12 credits)
The prerequisite courses for the M.S. in computer science are:

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<th>Course</th>
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<tr>
<td>CSCI5505</td>
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<td>CSCI5525</td>
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<td>CSCI5555</td>
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<td>CSCI5620</td>
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<td>CSCI6617</td>
<td>3</td>
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<tr>
<td>CSCI6638</td>
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</table>

Elective Courses (15 credits)
Elective courses in computer science are listed with course numbers ranging from CSCI6617 to CSCI8891. Students may register for CSCI8891 Internship/Work Experience only after completing 18 graduate credits.

Students may take up to 6 credits in non-CSCI prefixed courses with the permission of their adviser. An additional 3 to 6 credits of non-CSCI prefixed courses may be taken in electrical engineering with the permission of an adviser.

Advanced Computer Programming Certificate
The certificate program in advanced computer programming provides individuals with comprehensive experience in program development in several languages, including C/C++, assembly language, Java, ASP.NET, C#, VB.NET, Unix Shell and systems programming.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.

Requirements for Certificate in Advanced Computer Programming
18 credits (six courses) are to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>CSCI5505</td>
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<tr>
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Computer Security Certificate
The certificate program in computer security provides individuals with expertise in establishing information security policies and business-continuation planning in organizations.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.

Requirements for Certificate in Computer Security
18 credits (six courses) are to be chosen from the following:

<table>
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<th>Course</th>
<th>Credits</th>
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<td>CSCI5552</td>
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<tr>
<td>CSCI6731</td>
<td>3</td>
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<tr>
<td>CSCI6869</td>
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<tr>
<td>CSCI6873</td>
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</tbody>
</table>

Database Administration Certificate
The certificate program in database administration provides expertise in the development, maintenance and supervision of databases.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI5741</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5783</td>
<td>3</td>
</tr>
</tbody>
</table>
Computer Science

Requirements for Certificate in Database Administration
18 credits (six courses) are to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI5505</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computer Programming</td>
<td></td>
</tr>
</tbody>
</table>
| or
| CSCI5525     | 3       |
| Introduction to Computer Science    |
| CSCI625      | 3       |
| Database Systems                       |
| CSCI6882     | 3       |
| Data Warehouse and Data Mining         |
| CSCI7741     | 3       |
| Disaster Recovery                        |
| CSCI7781     | 3       |
| Advanced Database Systems               |
| CSCI7783     | 3       |
| Information Security                      |
| CSCI7785     | 3       |
| Distributed Database Systems             |

Students must satisfy the prerequisites of the courses that they will take.

Degree Options or Academic Credits: Courses with numbers 6000 or higher completed through this certificate can be credited toward the M.S. in Computer Science program. Other courses may be substituted with prior approval of the student’s academic adviser.

Internet Programming Certificate
Internet programming is a contemporary field of computer programming. It refers to network communication, distributed computing and web applications. The certificate program in Internet programming provides expertise in computer-programming fundamentals, web programming, and Internet-based application software development.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.

Requirements for Certificate in Internet Programming
18 credits (six courses) are to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCI5505</td>
<td>3</td>
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<tr>
<td>Introduction to Computer Programming</td>
<td></td>
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<tr>
<td>CSCI5555</td>
<td>3</td>
</tr>
<tr>
<td>Data Structures</td>
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<tr>
<td>CSCI6731</td>
<td>3</td>
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<tr>
<td>Computer Networks</td>
<td></td>
</tr>
<tr>
<td>CSCI6735</td>
<td>3</td>
</tr>
<tr>
<td>Client-server Computing</td>
<td></td>
</tr>
<tr>
<td>CSCI6810</td>
<td>3</td>
</tr>
<tr>
<td>Java and the Internet</td>
<td></td>
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<tr>
<td>CSCI6844</td>
<td>3</td>
</tr>
<tr>
<td>Programming for the Internet</td>
<td></td>
</tr>
</tbody>
</table>

Students must satisfy the prerequisites of the courses that they will take.

Academic Credits: Courses with numbers 6000 or higher completed through this certificate can be credited toward the M.S. in Computer Science program. Other courses may be substituted with prior approval of the student’s academic adviser.

Telecommunications and Networking Certificate
The certificate program in telecommunications and networking provides expertise in the development, maintenance, and supervision of telecommunications systems and computer networks.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.

Requirements for Certificate in Telecommunications and Networking
One 3-credit course is to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI6731</td>
<td>3</td>
</tr>
<tr>
<td>Computer Networks</td>
<td></td>
</tr>
<tr>
<td>EENG7737</td>
<td>3</td>
</tr>
<tr>
<td>Computer Communication Networks</td>
<td></td>
</tr>
<tr>
<td>15 credits (five courses) are to be chosen from the following:</td>
<td></td>
</tr>
<tr>
<td>CSCI6730</td>
<td>3</td>
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<tr>
<td>Advanced Network: TCP/IP and Routing</td>
<td></td>
</tr>
<tr>
<td>CSCI6732</td>
<td>3</td>
</tr>
<tr>
<td>Local Area Networks</td>
<td></td>
</tr>
</tbody>
</table>

Degree Options: Courses appropriately selected and completed for this certificate program under the direction of the student’s academic adviser can be credited toward the M.S. in Computer Science or M.S. in Computer Engineering (specialization in Digital Signal Processing and Communications) program. Other courses may be substituted with prior approval of the academic adviser.

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.

Computer Science
Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

CSCI5505
3 Credits
Introduction to Computer Programming
Use of computers in problem solving. Algorithm development using stepwise refinement. Structured programming techniques. Top-down design and modularity. Readability and documentation techniques. Programming in a high-level language, such as Java.

Fall

CSCI5525
3 Credits
Introduction to Computer Science
Introduction to computer hardware and software, interactions and tradeoffs. Essentials of computer organization and arithmetic, data manipulation, operating systems, computer networks, and computer theory. Foundation for more advanced courses. Corequisite: CSCI5505

Fall
Mathematics for Computer Science and MIS
Introduction to basic mathematical concepts and how they relate to computer science; formal logic, set theory, functions, relations, Boolean algebra, graph theory and combinatorics.
Fall

CSCI5551
Mathematics for Computer Science and MIS
Introduction to basic mathematical concepts and how they relate to computer science; formal logic, set theory, functions, relations, Boolean algebra, graph theory and combinatorics.
Fall

CSCI6603
Computer Architecture
Fall, Spring

CSCI6605
Combinatorics
Arrangements, selections and distributions. Generating functions, partitions and recurrence relations. Inclusion-exclusion principle. Graph models and isomorphisms. Planarity, Euler and Hamilton circuits. Graph coloring. Trees and graphs algorithms. Applications particularly to computer science. Prerequisite: CSCI5551 Mathematics for Computer Science and MIS.

CSCI6617
Computer Game Programming
Introduction to computer-game development. Topics include fundamentals of Microsoft DirectX game and graphics libraries, 2D graphics and animation, audio output, keyboard/mouse handling and fundamentals of 3D modeling and programming. Prerequisite: CSCI5505 Introduction to Computer Programming.

CSCI6620
Software Engineering
Fall, Spring

CSCI6623
Database Systems

CSCI6638
Operating Systems
An introduction to the fundamental principles of operating systems in terms of resource management and machine virtualization. Topics include system services, process management, synchronization, threads, CPU scheduling, memory, device, file management and security. Integrated lab. Prerequisite: CSCI5565 Assembly Language or CSCI6603 Computer Architecture.
Fall, Spring

CSCI6702
Programming Languages
Theory and implementation of high-level programming languages. Information hiding, storage management, sequence control, data abstraction, generics, exception handling, concurrency, imperative and functional languages. Implementation in various languages. Prerequisite: CSCI5555 Data Structures.

CSCI6720
Management Information Systems
Role and structure of information systems in an organization. Components of MIS: human resources, software, hardware, files and databases, telecommunications. Levels of MIS. Decision-making process. Cognitive and behavioral aspects of MIS. Concepts of information and systems. Organizational planning and control with information systems. Prerequisite: CSCI5525 Introduction to Computer Science.
Fall, Spring

CSCI6723
Database Project with Visual Basic
This course will study the methodology of database design within a total project framework. Students will learn how to develop a database design and how to plan for a total program development and then implement the plan. The database will be implemented in Access while the program’s user interactions will be programmed in Visual Basic.

CSCI6729
Statistical Programming
This course gives a thorough introduction to using statistical analysis software (SAS) for statistical analysis. Topics include importing and exporting files; output formatting; predictive data modeling and exploration (mixed-models analysis, multivariate statistical analysis, longitudinal analysis and survival analysis); and a programming approach to report writing. Prerequisite: elementary knowledge of a programming language. (Equivalent to MATH6729 Statistical Programming.)

CSCI6730
Advanced Network: TCP/IP and Routing
This course is on internet work design and architecture. It covers addressing, binding, routing, internet and application protocols, principles and architecture of the global internet. The focus is on the TCP/IP internet protocol suite.

CSCI6731
Computer Networks
Introduction to the theory and practice of computer networking. Protocol design and analysis. Topics include layered protocol architectures, packet and circuit switching, multiplexing, routing, congestion and flow control, error control, sequencing, addressing and performance analysis. Examples from current data networks. Prerequisites: CSCI5505 Introduction to Computer Programming and CSCI5525 Introduction to Computer Science.
Fall

CSCI6732
Local Area Networks
This course will cover the topics of local area networks (LANs). The major topic areas include the evolution of local area networks; an overview of LAN applications; LAN models; five taxonomic variables that can be used to classify LAN technology; the IEEE 802 LAN Standard;
repeater, bridges, routers and gateways; and an overview of major LAN products. Prerequisites: CSCI5525 Introduction to Computer Science and CSCI5551 Mathematics for Computer Science and MIS.

CSCI6733 3 Credits Decision Support Systems Characteristics of decision support systems (DSS) within the management information systems (MIS) framework; requirements for effective DSS; normative and behavioral theories of decision making; dialog, database and model management; classes of models; DSS development: tools and methodologies. Prerequisite: CSCI6720 Management Information Systems.

CSCI6734 3 Credits Expert Systems The evolution of knowledge-based expert systems, system structure, knowledge representation schemes, quantifying uncertainty, exact and inexact inference, survey of current systems, languages and tools for building expert systems, problem-selection criteria, the expert system’s life cycle, knowledge-acquisition techniques, incremental development, testing and evaluation methods and applications of expert systems. Prerequisite: CSCI5555 Data Structures.

CSCI6735 3 Credits Client-server Computing An introduction to the theory and technology of client-server computing. Course material includes general software architecture and component-based software system development, n-tier architecture, sockets, PRC, Java remote method invocation (RMI), CORBA, MS COM/ DCOM and their applications. Prerequisite: CSCI5555 Data Structures.

CSCI6736 3 Credits Wireless LANs Introduction to wireless local area networks (LANs) and their technology and use. Topics include design, installation and troubleshooting, security, 802.11 frames. Prerequisite: CSCI6731 Computer Networks.

CSCI6737 3 Credits Advanced Switching Internet Routing This course focuses on advanced switching and Internet routing protocols. Topics include switch design and operation, VLANs, port security 802.1x, trunking, port aggregation, high availability and redundant switched network design, advanced IP addressing architectures, routing algorithm concepts and routing protocols: RIP, OSPF, BGP, multicasting, protocol tunneling and routing security. Prerequisite: CSCI6730 Advanced Network: TCP/IP and Routing or CSCI6731 Computer Networks.

CSCI6738 3 Credits Cybersecurity This course deals with the application and management of mechanisms for cybersecurity and information assurance in computing, communication and organizational systems. Projects are structured to assist in the use of analytical skills in developing policies and assessing threats and vulnerabilities. Topics include malware and social engineering, vulnerability assessments, network security, authentication, intrusion detection, basic cryptography, data obfuscation and network forensics. A detailed analysis will be conducted on specific vulnerabilities that are exploited in various types of attacks, such as buffer overflow and virus infection. Prerequisite: CSCI6731 Computer Networks.

CSCI6739 3 Credits Computer Performance and Evaluation Methods used for evaluation of computer-system design strategies, such as number of servers, communication architecture and database operations. Analysis of models to assess performance of alternate implementation strategies. Evaluation of existing systems. Prerequisites: CSCI5551 Mathematics for Computer Science and MIS and a reading knowledge of a high-level programming language.

CSCI6740 3 Credits Applied Cryptography This course introduces cryptographic algorithms, protocols and their uses in the protection of information in various states. Topics include block ciphers, data encryption standard (DES), advanced encryption standard (AES), secret and public key encryption (RSA), cryptographic hash functions (e.g., MD5, SHA-3), digital signatures and the key distribution (PKI) problem. Types of attacks and application of cryptography in secure sockets layer (SSL), virtual private networks, secure storage and other security issues are also discussed.

CSCI6741 3 Credits Modeling and Simulation of Continuous Systems Classification and construction of continuous-systems models. Simulation of systems arising in management practice using the system-dynamics modeling strategy. Design and validation of simulation experiments. Interpretation of experimental results. Laboratory. Prerequisite: knowledge of a high-level programming language.

CSCI6743 3 Credits IBM System i Enterprise Computing Students will study the architecture and software of the IBM i computers. This includes the hardware, middleware, system software, application software, interfaces to other systems and software products. Students will also study the security and network communications capabilities of the System i computers. Special emphasis is placed on the control language, unique file system, application programming languages and data-management services. Prerequisites: CSCI5505 Introduction to Computer Programming and CSCI5525 Introduction to Computer Science.

CSCI6744 3 Credits Enterprise Computing for the IBM zSeries Students will study the architecture and software of the IBM zSeries computers (mainframe). This includes the hardware, middleware, system software, application software, interfaces to other systems and software products. Students will also study the security and network communications capabilities of the zSeries computers. Special emphasis is placed on the control language, unique file system, application programming languages and data-management services. Prerequisites: CSCI5505 Introduction to Computer Programming and CSCI5525 Introduction to Computer Science.

CSCI6745 3 Credits Computer Graphics Computer analysis of two- and three-dimensional line drawings and half-tone images. Capabilities of modern hardware, picture-processing algorithms, image enhancement, pattern recognition, scene analysis, interactive graphics. Prerequisites: linear algebra and knowledge of a high-level programming language.

CSCI6750 3 Credits Advanced Quantitative Analysis Mathematical programming techniques and optimization methods. Goal, integer, nonlinear and dynamic programming. Regression analysis for planning and forecasting. Construction of models with the use of a modeling language. Laboratory. Prerequisite: CSCI5551 Mathematics for Computer Science and MIS.

CSCI6751 3 Credits Artificial Intelligence A general introduction to the ideas and methods that will enable computers to be intelligent. Top-
ics include natural language parsing, search, predicate calculus, representation of common sense knowledge, expert systems, managing plans of action, language comprehension. Programming projects. Prerequisite: CSCI5555 Data Structures.

CSCI6758
3 Credits
Electronic Commerce

CSCI6761
3 Credits
Automata Theory
Formal languages. Finite automata, push-down automata and Turing machines. Relationship between formal languages and automata. Undecidability. The halting problem, the Post correspondence problem and their relation to other undecidable problems. Prerequisite: CSCI5551 Mathematics for Computer Science and MIS.

CSCI6767
3 Credits
Object-oriented Programming
Object-oriented programming in C++. Elements of the C++ language: classes, inheritance, operator overloading, templates, exception handling and real-time type information. An introduction to object-oriented design.

CSCI6803, CSCI6804
2–3 Credits Each Semester
Research and Thesis
A program of selected research, tailored to the interest and capabilities of the individual student, under the guidance of a school graduate adviser.

CSCI6805
3 Credits
Graduate Research (Nonthesis)
Graduate-level, nonthesis research with a faculty member in computer science.

CSCI6810
3 Credits
Java and the Internet
This course is designed for students who have object-oriented programming experience. It focuses on advanced Java programming features. The main topics are Java event model, event-driven programming, graphical user interface design, Java Swing components, graphics and media processing, exception handling, multi-threading, Java applet and servlet, web-based applications, I/O streams and data files, Java database connectivity (JDBC), Java networking programming, remote method invocation (RMI) and Java beans. Prerequisite: CSCI5555 Data Structures or CSCI6844 Programming for the Internet.

CSCI6811
1–3 Credits Each Semester
Advanced Special Projects
Advanced computer projects of special interest to individual students. Fall, Spring

CSCI6820
3 Credits
J2EE Programming
This course is designed for students who are interested in learning how to build or maintain enterprise applications based on the J2EE architecture. Students are expected to have a good understanding of web technology and server-side programming for dynamic web content. The main topics are Servlet and JSP programming, EJB programming and the debugging of J2EE applications. Prerequisite: CSCI6810 Java and the Internet.

CSCI6830
1–3 Credits
Special Topics in Computer Science
A detailed study of some special area in computer science. The area is chosen by the instructor and will be different each time. For this reason, the course may be taken for credit more than once.

CSCI6836
3 Credits
Computer Algorithms
An introduction to algorithm development. Topics include complexity analysis, practical algorithm development and common algorithm methods, including recursion, greedy algorithms, dynamic programming, backtracking and branch-and-bound. The course will include programming assignments implementing the algorithms discussed in class. Prerequisite: CSCI5555 Data Structures or permission of instructor.

CSCI6837
3 Credits
Mind-controlled Devices with Robotics
This course teaches people to model the programming needs, create prototypes in the C++ programming language and build an application. The application uses a cyberlink mental interface as an input device. The resulting efforts control a robotic arm.

CSCI6844
3 Credits
Programming for the Internet
This course introduces students to the fundamentals of Microsoft.NET framework, the ASP.NET web development environment and C# programming. It also covers XML web services, SQL Server database and Microsoft web server IIS (Internet Information Services). Students study how to develop powerful websites and web applications that access databases using dynamic, server-side programming in C#. They also will learn how to deploy such applications over various servers. Prerequisite: CSCI6623 Database Systems.

CSCI6846
3 Credits
Advanced Programming for the Internet
This second-semester course will build on the technologies and programming techniques taught in CSCI6844 Programming for the Internet. The course will cover the Extensible HyperText Markup Language (XHTML) Version 1.0, which superseded HTML in January 2000 as the standard for marking up web pages. XHTML is the joining of the HTML and Extensible Markup Language (XML) standards. Additional topics on XML will be presented to increase student knowledge and programming expertise. Practical Extraction and Report Language (PERL) and its use in Common Gateway Interface (CGI) scripts to process HTML forms will be discussed. Two additional scripting languages will be covered: Visual Basic Script (VBScript) and PerlScript. The use of Dynamic HTML and DHTML scriptlets in web pages will be covered. Unified Modeling Language (UML) will be discussed and used in the design, development and implementation of a team project. Prerequisite: CSCI6844 Programming for the Internet.

CSCI6851
3 Credits
Parallel and Fault-tolerant Systems
This course will include the evolution of computer systems, parallel processing systems, principles of pipelining and vector processing, array processors, multiprocessor architectures, data flow computers, very-large-scale integration (VLSI) systems, fault-tolerant systems and programming in the parallel processor environment. Prerequisites: CSCI5551 Mathematics for Computer Science and MIS, CSCI5555 Data Structures and CSCI6603 Computer Architecture.
CSCI6860
3 Credits
Secure Software Development and Analysis
The course introduces the characteristics of secure programs and methods of implementing programs that are free from vulnerabilities. Topics include robust and defensive programming, input validation, buffer overflows, data obfuscation and protection, secure software development life cycle, security assessment, threat modeling and architecture security, design and testing methodologies, fuzz testing, static and dynamic analysis, source and binary code analysis tools and methods. The course will include assignments on analyzing software, either in source code or binary form, to find any vulnerability. Prerequisites: CSCI5505 Introduction to Computer Programming and CSCI6738 Cybersecurity.

CSCI6865
3 Credits
Supply Chain Security and Systems Certification
The course deals with the security issues associated with building complex (software and/or hardware) systems out of third-party components of unknown (and potentially unknowable) origin. Topics covered include elements that impact the supply chain, provider security review, storage and distribution, supply chain security program compliance, security auditing and assessments, resources and technology (GPS, RFID). The course additionally introduces the DoD processes and regulations associated with the certification and accreditation of operational systems and the authorities and processes for the approval of their operation.

CSCI6869
3 Credits
Network Security
Coverage of potential threats to a stand-alone or networked computer. The course includes strategies to analyze system vulnerabilities and to harden the system against threats. Integrated lab. Prerequisite: CSCI6731 Computer Networks or CSCI6732 Local Area Networks.

CSCI6870
3 Credits
Penetration Testing and Vulnerability Analysis
The course provides an overview of system vulnerabilities and methods of discovering ways of exploiting vulnerabilities to gain access to a system. Topics include identifying flaws and vulnerabilities, vulnerability-assessment tools, vulnerability scanning, exploiting scanner findings, web application penetration testing, network privilege escalation, social engineering attacks, patch management, configuration management. Projects on planning, organizing and performing penetration testing on a simple network will be pursued. Prerequisites: CSCI6638 Operating Systems, CSCI6731 Computer Networks and CSCI6738 Cybersecurity.

CSCI6873
3 Credits
Firewalls and Intrusion-detection Systems
This course covers the theoretical and practical aspects of firewalls and intrusion-detection systems. Some aspects of virtual private networks (VPNs) and routers will also be covered. Prerequisites: CSCI6638 Operating Systems and CSCI6731 Computer Networks.

CSCI6880
3 Credits
Data Mining
This course introduces the fundamental concepts of data mining. Students will gain an in-depth understanding of algorithms in the field, and will learn how to prepare data for learning and classification. Topics covered include data preprocessing, classification, cluster and outlier analysis and text mining. Students will work on projects applying the theory learned. Prerequisites: CSCI6836 Computer Algorithms, MATH1300 Statistics I or permission of department chair.

CSCI6882
3 Credits
Data Warehouse and Data Mining
Study of the concepts, design and architecture of the data warehouse. Study of decision-making process using the data warehouse and techniques like online analytical processes and data mining. Topics also include the relation between data mining and data warehouse, supporting more complex queries than regular structured query language (SQL) and historical and summary transformations and tools to make crucial business decisions. Prerequisite: CSCI6623 Database Systems.

CSCI6885
3 Credits
Big Data Analytics with Hadoop and R
The growth of Big Data presents a great challenge for academia and various industries. New technologies are emerging for storing data, information retrieval and knowledge discovery in large unstructured data sets. This course presents core paradigms of Big Data analytics along with cutting-edge tools and techniques. Hands-on training will be provided with NoSQL databases, the Hadoop family of Big Data analytics, scalable cloud computing and the R tool. Prerequisite: CSCI6623 Database Systems.

CSCI7645
3 Credits
Systems Programming
Introduction to operating systems software. Topics chosen from process management, interprocess communication, interrupt handling and file systems. Students will develop software that will implement and use operating systems primitives. Prerequisites: CSCI5555 Data Structures and CSCI6638 Operating Systems. Fall, Spring

CSCI7740
3 Credits
Introduction to Real-time Systems
Real-time languages and concurrent programming. Design of real-time kernels, context switching and memory allocation. Reliability, fault-tolerance and exceptions. Verification and validation of real-time software. These topics will be illustrated through examples and projects. Prerequisites: CSCI5555 Data Structures and CSCI6638 Operating Systems.

CSCI7741
3 Credits
Disaster Recovery
Students will learn how to prepare and implement a disaster-recovery plan, which includes assessing risks, prioritizing system functions, developing procedures and establishing organizational relationships. Students will also test and then evaluate the disaster-recovery plan. Prerequisite: CSCI6623 Database Systems.

CSCI7771
3 Credits
Compilers and Translators

CSCI7773
3 Credits
Digital Image Processing
A treatment of the techniques used in image enhancement and restoration. Topics will include image modeling and geometry, image transforms, fast Fourier transform (FFT), histogram modification, spatial and frequency domain filtering, image encoding. Some discussion of pattern recognition will be included.

CSCI7775
3 Credits
Pattern Recognition
Introduction to pattern recognition, feature detection and extraction, Bayes Classification theory. Fisher discriminant theory, template-based recognition, eigenvector analysis, linear discriminant/perception learning, k-nearest-neighbor classification, K-means clustering, non-parametric classification, density estima-
This course covers constructing complete systems for e-commerce. Object-oriented programming, website design, scripting, advanced markup language features, internet database programming, multimedia programming and other techniques will be deployed as necessary to create and document a realistic e-commerce offering. Semester-long team projects will be completed. Prerequisites: CSCI6625 Database Systems, CSCI6758 Electronic Commerce, CSCI6810 Java and the Internet and CSCI6844 Programming for the Internet.

Full

CSCI7838
3 Credits
Introduction to Computer Telephony
Telephone Application Interface (TAPI); active and telephony components; application of Visual C++ to make online telephone calls via mouse or headset (electrode placed on forehead). Prerequisites: CSCI5355 Data Structures and CSCI638 Operating Systems.

CSCI7839
3 Credits
Voice-over IP Technologies
This course gives an introduction of voice-over IP technologies. Topics include the Public Switched Telephone Network (PSTN), signaling specifications, modulation and compression of voice, Quality of Service (QoS), H.323 architecture and protocol suite, Session Initiation Protocol (SIP), gateway protocols and voice and data network convergence. Prerequisite: CSCI6731 Computer Networks or CSCI6732 Local Area Networks.

CSCI7870
3 Credits
Linux System Administration
This course introduces the concepts of system administration as they apply to the Linux operating system. Topics include servers and data centers; virtualization; directories and file systems; access control; Linux and Windows; regular expressions and scripting; processes and services; network, network software and the internet; security policy and ethics; change management, backup and restore; database security and installation. Secure configuration of Linux systems will be pursued.

CSCI7871
3 Credits
Unix Shell Programming
To enable students to derive maximum benefits from using shell, the course will cover shell for the novice, shell programming for results and shell programming for mastery. It describes the basic skills to create whole applications, together with the steps into the world of software developers and system administrators. Prerequisite: CSCI5525 Introduction to Computer Science or permission of instructor.

CSCI7874
3 Credits
Unix System Administration
A detailed introduction to Unix system administration starting with the basics and advancing to script writing concepts, commands and packages that are needed to manage a Unix system. Prerequisite: CSCI7871 Unix Shell Programming.

CSCI7877
3 Credits
Development of E-business Applications
Introduction to e-business; e-business methodology; process modeling and documentation; selected SML technologies; Simple Object Access Protocol (SOAP); Web Service Definition Language; Universal Description Discovery and Integration. Prerequisites: CSCI5505 Introduction to Computer Programming and CSCI5555 Data Structures, CSCI6625 Database Systems and CSCI6844 Programming for the Internet.

CSCI7881
3 Credits
Operating Systems Audit and Hardening
The course is an introduction to Unix and Windows operating systems security audits (with major emphasis on Unix/Linux and minor on Windows). It is based on students' understanding of operating systems and shell programming skills. Major topics include: compliance audits, authentication security and defense against privilege escalation, role-based digest functions and defense against Rootkits and internal break-in forensics, log analysis, system hardening, patching compliance, virus and worm protection. Prerequisites: CSCI5505 Introduction to Computer Programming, CSCI6638 Operating Systems and CSCI7871 Unix Shell Programming.

CSCI8891
1–3 Credits
Internship/Work Experience
The course provides on-the-job education and training in the concepts presented in the graduate computer science, electronic commerce, management information systems and cybersecurity and information assurance curricula. Students must submit, for the school’s approval, a proposal from the employer detailing the nature of the intended work. Weekly contact must be maintained with the school's adviser to confirm the quality of the work experience. A report at the conclusion of the work experience is required, detailing both the educational and training aspects of the job. Prerequisite: students must have been enrolled in the computer science, electronic commerce, management information systems and cybersecurity and information assurance programs for at least nine months.

Mathematics
The following graduate courses in mathematics are offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.
Cosmetic Science

MATH6630
3 Credits
Special Topics in Mathematics
A study of topics of current interest in mathematics education.

MATH6729
3 Credits
Statistical Programming
This course gives a thorough introduction to using statistical analysis software (SAS) for statistical analysis. Topics include importing and exporting files, output formatting, predictive data modeling, and a programming approach to report writing. Prerequisite: CSCI1201 Computer Programming I and CSCI1202 Computer Programming II. Corequisite: MATH6737 Applied Statistics I. (Equivalent to CSCI6729 Statistical Programming.)

MATH6737
3 Credits
Applied Statistics I
This course is an introduction to statistical methods of data analysis emphasizing examples drawn from the biological and life sciences. Topics include probability, descriptive statistics, point and interval estimation, hypothesis testing, statistical design and sampling, linear regression, and Chi-square testing.

MATH6738
3 Credits
Applied Statistics II
As a continuation of MATH6737 Applied Statistics I, this course covers more advanced statistical methods including analysis of variance (ANOVA), analysis of covariance (ANCOVA), factor and cluster variance, multiple linear regression, nonparametric tests, categorical data analysis, and survival analysis. Time permitting, additional topics include Monte Carlo methods, mixed models, and classification and regression trees. Prerequisite: MATH6737 Applied Statistics I.

MATH6740
3 Credits
Mathematics of Operations Research
This course is an introduction to mathematical programming using the simplex method and transportation algorithms. Additional topics will be selected from decision analysis, nonlinear programming, Markov process, queueing models, and forecasting.

MATH6850
3 Credits
Special Topics in Mathematics
A detailed study of some special area in mathematics. The area is chosen by the instructor and will be different each time. For this reason, the course may be taken for credit more than once. Prerequisite: MATH2205 Calculus III.

MATH6857
3 Credits
Probability and Statistics I
This calculus-based course is the first part of a two-semester sequence which serves as a comprehensive introduction to the concepts, definitions, theory and practice of probability and statistics. The topics covered include the fundamentals of probability, discrete and continuous random variables (including binomial, poisson, normal, chi-square, etc.), functions of random variables, moment-generating functions, sampling distributions and applications. Prerequisite: MATH2202 Calculus II.

MATH6858
3 Credits
Probability and Statistics II
As a continuation of MATH6857 Probability and Statistics I, this course covers hypothesis testing, regression and correlation in one and several variables, analysis of variance, nonparametric tests, multivariate statistics as well as other advanced topics selected from the design of experiments, Markov processes, Bayesian models selection, neural network and/or time-series analysis. Prerequisite: MATH6857 Probability and Statistics I.

MATH6841
3 Credits
Higher Geometry
Axiomatics, groups of transformations and invariants. Erlanger Program, Euclidean and Lobachevskian geometry, special topics.

Cosmetic Science (M.S.)
To serve the needs of the large population of cosmetic science professionals in the New York metropolitan area, Fairleigh Dickinson University’s School of Natural Sciences offers a Master of Science in cosmetic science.

This program, the first of its kind in New Jersey, was introduced in 1982 as an M.A. in science with a concentration in cosmetic science. The current name, M.S. in cosmetic science, more accurately reflects its scientific content. This program continues to fulfill the needs of those responsible for creating commercial products in the cosmetics, toiletries and fragrance industries. It enables practitioners to learn the latest advances in their field and helps students to develop the skills necessary for senior assignments in the cosmetics industry. It is also geared to technologists aspiring to supervisory roles in the laboratory or plant. For those without industrial experience, the program can launch a career in the cosmetic industry.

This program is offered under the auspices of the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. Graduation from an accredited college or university with a baccalaureate degree in an allied science (biology, chemistry, biochemistry or pharmacy). This baccalaureate degree must include a two-semester sequence of organic chemistry.
2. Submission of scores on the Graduate Record Examinations (GRE) General Test.
3. Three letters of recommendation.
4. A minimum score of 550 (paper-based) or 213 (computer-based) or 79 (internet-based) on the Test of English as a Foreign Language (TOEFL) or its equivalent is required for applicants whose native language is not English.
Note: Financial assistance in the form of teaching assistantships and research scholarships is not available.
Requirements for the  
Master of Science Degree

**Required Courses (20 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL6756 Dermal Pharmacology and Immunology</td>
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<tr>
<td>CHEM6326 Product Development</td>
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<tr>
<td>CHEM6329 Microtoxicology and Biochemistry</td>
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<tr>
<td>COSC6543 Hair-care Raw Materials and Formulations</td>
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<tr>
<td>COSC6547 Skin-care Raw Materials and Formulations</td>
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<tr>
<td>COSC6548 Cosmetic Science Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS6753 Applied Colloid and Surface Science</td>
<td>3</td>
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**Cosmetic Science Electives**

(6 credits minimum)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL6728 Bioethics</td>
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<tr>
<td>CHEM6346 Perfumery</td>
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<tr>
<td>CHEM6373 Polymer Chemistry</td>
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<tr>
<td>CHEM6371 Biochemistry</td>
<td></td>
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<tr>
<td>COSC6542 Claims Substantiation</td>
<td></td>
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<tr>
<td>COSC6549 Color Cosmetics</td>
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**Free Electives (6 credits maximum)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MGMT5012 Foundations of Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012 Marketing Principles</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6602 Marketing Research</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6603 Consumer Behavior</td>
<td>2</td>
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<tr>
<td>BIOL5000 or higher Biology Elective</td>
<td>1–3</td>
</tr>
<tr>
<td>CHEM5000 or higher Chemistry Elective</td>
<td>3</td>
</tr>
<tr>
<td>COMMS5000 or higher Communication Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

**Cosmetic Science**

*School of Natural Sciences*

**COSC6542 3 Credits**

**Claims Substantiation**

Discussion of claim types including efficacy, safety and consumer with construction of solid claims support packages through the knowledge of basic skin physiology, noninvasive bioinstrumentation, proper claims support study design and SOPs for claims substantiation (EEMCO guidelines).

**COSC6545 3 Credits**

**Hair-care Raw Materials and Formulations**

Surfactants, proteins, polymers, preservatives, toxicology, performance, theoretical concepts, preparation methods and analytical procedures for shampoos and conditioners, including fixatives, test methods, safety and stability.

**COSC6547 3 Credits**

**Skin-care Raw Materials and Formulations**

Structure, function, use chemistry and application of emulsifiers, emollients, silicones, thickeners, colorants, chelators, preservatives and other ingredients in skin care products.

**COSC6548 2 Credits**

**Cosmetic Science Laboratory**

Hands-on experience creating and evaluating hair and skin products. Emulsions including creams and lotions and surfactant systems including shampoos and gels. Prerequisite: COSC6543 Hair-care Raw Materials and Formulations or COSC6547 Skin-care Raw Materials and Formulations.

**COSC6549 3 Credits**

**Color Cosmetics**

Worldwide cosmetic color regulations, formulations including fillers, conventional colorants and specialty pigments, as well as the manufacture of all types of makeup products. Prerequisite: COSC6547 Skin-care Raw Materials and Formulations.

**COSC6551 3 Credits**

**Sensory Evaluation of Cosmetic Products**

Techniques, methods and statistics used for the sensory evaluation of cosmetic products; the interaction between product functionality and raw materials selection. Prerequisite: COSC6543 Hair-care Raw Materials and Formulations or COSC6547 Skin-care Raw Materials and Formulations.

**PHYS6753 3 Credits**

**Applied Colloid and Surface Science**

The technical aspects of emulsions, solubilized systems, foams and dispersions. Structure and dynamics of complex systems. Polyphase equilibrium, phase transitions and kinetic distributions. The physics of interfaces and effects of surface structure. Principles of colloid science along with practical procedures as applied in cosmetic formulations, including examples. Fall
Creative Writing

The Master of Fine Arts (M.F.A.) in creative writing is a low-residency program in which students work closely with published authors who serve as their mentors and teachers. During the 10-day residencies held twice each year, students participate in workshops; they meet with their mentors and fellow students; and they attend readings and interviews with visiting writers as well as a variety of literary events. During the rest of the academic year, each student works one-on-one with members of the faculty and participates in workshops online. This program gives students access to an international community of acclaimed and award-winning writers.

The M.F.A. degree is offered in five disciplines — poetry, fiction, creative nonfiction, writing for young adults and children's literature and literary translation.

The program offers a 60-credit single-concentration M.F.A. degree as well as an 88-credit dual-concentration M.F.A. degree. The specific details about each program are explained separately on this page.

The program is arranged into modules (8-week courses) and residencies (10 days of study on one of FDU's campuses). Two residencies are offered each year, one in late July at the Florham Campus in Madison, New Jersey, and another in early January at the Wroxton, England campus. The residencies offer individual conferences with mentors, group workshops, readings and instruction by distinguished visiting writers, presentations by publishing professionals, faculty lectures, student readings and other literary-related activities. Students must attend every scheduled event, as the residency is part of the course work.

There are no letter grades. All courses operate on a Pass/Fail system. Academic work is completed during the online writing modules and the residencies, rather than in traditional courses. Each academic year, four online writing modules, each eight weeks long, taken consecutively (rather than simultaneously) are offered, two in the spring and two in the fall. A faculty mentor directs each module. In addition to producing their own original creative and critical work, students are expected to actively participate in peer-oriented online writing workshops throughout each module.

This program is offered under the auspices of the department of literature, language, writing and philosophy, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admission Requirements

1. Students must have a bachelor's degree from an accredited college or university with a satisfactory academic record.
2. Students must submit a writing sample. In admissions decisions, the greatest weight will be given to the writing sample.
3. All incoming students must begin their first semester of the program by attending a residency and registering for two modules.

Requirements for Single-concentration M.F.A. Degree

Sixty credits (eight modules and three residencies) are required to complete the single-concentration M.F.A. degree as follows:

- 5 modules in the chosen genre,
- 1 module in an elective genre other than the student's own,
- 1 module in craft essay (taken in the 5th module),
- 1 thesis module in chosen genre (last module)
- 3 fully attended residencies (ideally completed before completion of the thesis module).

Each module is worth 6 credits (8 modules = 48 credits) and each residency is worth 4 credits (3 residencies = 12 credits) for a total of 60 credits.

The degree is conferred upon successful completion of eight writing modules, three residencies and a craft essay and thesis manuscript. The degree may be completed in as little as two years but must be completed within five years. Specific requirements are:

1. Five modules in the students' chosen discipline.
2. One module in craft in the student's chosen discipline. The craft module is the fifth module. During these eight weeks, students will work closely with their mentors to explore matters of craft, and by the end of the module, they should complete an essay on craft of 3,500–5,000 words. The topic and approach are the student's choice, but must be approved by the mentor.
3. One module that is an elective (completed at any time during their studies) in a discipline other than their own.

4. During the eighth module, students complete and polish the thesis in their discipline, working closely with their mentor. The thesis should reflect a culmination of all the work the student has completed during the program, and as such, it should represent the student's best possible writing. The thesis may be comprised of poems, short stories, essays, a novella, the beginning portion of a novel or the beginning portion of a memoir. The length should be approximately 25,000 words for prose. For poetry, the thesis should include approximately 375 lines. The thesis must be in the student's declared genre. During the thesis module, the thesis is written and revised by working closely with a mentor. Each thesis will undergo a formal evaluation and critique by the thesis mentor and second reader.

5. Three residencies must be completed. These 10-day intensive residencies are part of the course work. Students must attend every scheduled event in order to receive credit for the residency.

Requirements for Dual-concentration M.F.A. Degree

Eighty-eight credits (12 modules and four residencies) are required to complete the dual-concentration M.F.A. degree as follows:

- 5 modules in the primary genre,
- 1 craft essay module in the primary genre (taken in the fifth module),
- 1 elective module in the secondary genre,
- 1 thesis module in the primary genre,
- 3 additional modules in the secondary genre,
- 1 thesis module in the secondary genre and
- 4 fully attended residencies.

Each module is worth 6 credits (12 modules = 72 credits) and each residency is worth 4 credits (4 residencies = 16 credits) for a total of 88 credits.

The degree is conferred upon successful completion of 12 writing modules, four residencies and two thesis manuscripts. The degree may be completed in as little as three years but must be completed within five years. Specific requirements are:

1. Five modules in the students' primary discipline.
2. One module in craft in the student's primary discipline. The craft module is the fifth module. During this eight-week module, students will work closely with their
mentors to explore matters of craft, and by the end of the module, they should complete an essay on craft of 3,500–5,000 words. The topic and approach are the student’s choice, but must be approved by the mentor.

3. One module in the student’s secondary genre before taking their eighth module (primary thesis module).

4. During the eighth module, students complete and polish the primary-genre thesis, working closely with their mentor. The thesis should reflect a culmination of all the work the student has completed during the program, and as such, it should represent the student’s best possible writing. The thesis may be comprised of poems, short stories, essays, a novella, the beginning portion of a novel or the beginning portion of a memoir. The length should be approximately 25,000 words for prose. For poetry, the thesis should include approximately 375 lines. The thesis must be in the student’s declared genre. During the thesis module, the thesis is written and revised by working closely with a mentor. Each thesis will undergo a formal evaluation and critique by the thesis mentor and second reader.

5. Three modules in the secondary genre and the final, 12th, thesis module in the secondary genre.

6. Students must attend four residencies. These 10-day intensive residencies are part of the course work. Students must attend every event, lecture, mentor meeting, and workshop.

Modules
Students must complete six modules in their genre (including the thesis module) and one module in craft as the fifth in their program. The remaining module is an elective in which students work in another genre.

The first module starts at the beginning of the following semester after the residency and the second module follows the first. The modules require a measure of independence on the student’s part and a disciplined writing schedule. In each module, the student will have completed the amount of work specified and assigned by the mentor. Generally, work in any module consists of: 1) creative work submitted at three points each module; 2) active, thoughtful, constructive contributions to the online workshop; and 3) two close readings/reviews of relevant texts. Mentors respond to creative work within a week of submission. Other work may be required according to the wishes of the mentor. At the end of the module, the mentor will prepare a final assessment, evaluating each student’s work and progress.

Electives
The requirement of one module in a genre other than the student’s chosen area may be fulfilled through completion of an out-of-genre module in poetry, fiction, creative nonfiction, literary translation or writing for young adults and children’s literature.

Craft Module
Students must complete the module in craft for their genre of concentration during the fifth module of their work in the M.F.A. program.

Working closely with a mentor, the student will research and write an essay devoted to craft. The essay on craft must include: 1) a clear presentation of a central idea (or a sufficient articulation of a specific domain of exploration), fluent and correct syntax and a coherent organization; 2) logical thinking grounded in close readings of the texts; and 3) textual substantiation for the ideas put forth. The essay on craft should be (approximately) between 3,500 to 5,000 words. The mentor must approve the topic and approach, but the essay on craft may be an academic essay, a personal reflection on texts, a profile of an author that includes close readings or it may take another form, so long as it meets the above requirements and the mentor approves. Although the craft module does not contain the program’s traditional peer-oriented workshops, there will be opportunities for students to share drafts and discuss ideas at the residency and online.

Thesis Module
During the eighth module of the single concentration and in the eighth and 12th module of the dual-concentration degree, students complete and polish the thesis, working closely with their mentor. The thesis should reflect a culmination of all the work the student has completed in the genre during the program, and as such, it should represent the student’s best possible writing. The thesis may be comprised of poems, short stories, essays, a novella, the beginning portion of a novel or the beginning portion of a memoir. The length should be approximately 25,000 words for prose. For poetry, the thesis should include approximately 375 lines. The thesis must be in the student’s declared genre. During the thesis module, the thesis is written and revised by working closely with a mentor. Each thesis will undergo a formal evaluation and critique by the thesis mentor and second reader.

Course Offerings
Courses are offered in the fall and spring. Students will be registered by the M.F.A. coordinator.

Creative Writing
Department of Literature, Language, Writing and Philosophy

CRWR7500
6 Credits
Fiction Writing
In the fiction writing concentration, students will generate and revise works of fiction, receive constructive guidance from a faculty member and participate in online discussions with their fellow workshop partners. Students will also be required to write two short essays in which they closely explore an aspect of narrative craft in two works of fiction.

CRWR7502
6 Credits
Creative Nonfiction Writing
In the creative nonfiction writing concentration, students will generate and revise works of creative nonfiction, receive constructive guidance from a faculty member and participate in online discussions with their fellow workshop partners. Students will also be required to write two short essays in which they closely explore an aspect of creative nonfiction in two works of creative nonfiction.

CRWR7503
6 Credits
Craft and Form in Nonfiction
Matters of craft and form and specific examples of work in the genre will be discussed. Under the guidance of the instructor, the student will write about specific aspects of their craft and genre. This module is taken in the fifth module in a student’s sequence.
Creative Writing and Literature for Educators

CRWR7504
6 Credits
**Poetry Writing**
In the poetry writing concentration, students will generate and revise works of poetry, receive constructive guidance from a faculty member and participate in online discussions with their fellow workshop partners. Students will also be required to write two short essays in which they explore an aspect of craft in two collections of poetry.

CRWR7505
6 Credits
**Craft and Form in Poetry**
Matters of craft and form and specific examples of work in the genre will be discussed. Under the guidance of the instructor, the student will write about specific aspects of their craft and genre. This module is taken in the fifth module in a student’s sequence.

CRWR7509
6 Credits
**Writing for Young Adults and Children’s Literature**
In the writing for young adults concentration, students will study the particular craft consideration in writing for young adult readers — voice, pacing, structure and the idea of the “high concept” young adult story. Through workshops, discussions, close readings of young-adult novels and other works of fiction and one-on-one study with their mentors, students will produce stories or chapters of fiction for young adults.

CRWR7511
6 Credits
**Literary Translation**
In the literary translation concentration, students study the art of translating literary works from other languages into English. Through discussions, workshops and one-on-one study with their mentors, students will produce translations from the language or languages in which they specialize.

CRWR7512
6 Credits
**Craft and Form in Young Adult and Children’s Literature**
Matters of craft and form and specific examples of work in the genre will be discussed. Under the instructor’s guidance, the student will write about specific aspects of their craft and genre in preparation for a final lecture presentation. This module is taken in the fifth module in a student’s sequence.

CRWR7513
6 Credits
**Speculative Fiction**
The concerns of science fiction and fantasy include those of mainstream fiction, with additional questions about world building and suspension of disbelief. The discussions in this workshop will allow students working on speculative fiction to discuss in greater depth issues of craft specific to science fiction and fantasy. This course can substitute as a fiction module.

CRWR7524
3 Credits
**Teaching Composition: Theory and Practice**
This course will explore current and long-standing theoretical perspectives and pedagogical practices for teaching written in a first-year composition program. Students will consider curricular, social, political, pedagogical and theoretical ideas and practices that shape the teaching of writing. The course is free to FDU creative writing students taking two modules. Pass/no credit. Note: Students must take CRWR7525 Practicum for Teaching Composition: Theory and Practice and two additional creative writing courses.

CRWR7525
1 Credit
**Practicum for Teaching Composition: Theory and Practice**
Required practicum for CRWR7524 Teaching Composition: Theory and Practice. Composition theory in a classroom setting. In order to observe, evaluate and apply composition theory studied in CRWR7524 Teaching Composition: Theory and Practice. Course is free to FDU creative writing students taking two modules. Pass/no credit. Prerequisite: CRWR7524 Teaching Composition: Theory and Practice.

CRWR7530
6 Credits
**Craft and Form in Translation**
Matters of craft and form and specific examples of work in the genre will be explored and discussed. Under the instructor’s guidance, the student will write about specific aspects of their craft and form in preparation for a final lecture presentation. This module is taken in the fifth module in a student’s sequence.

Creative Writing and Literature for Educators (M.A.)

The M.A. in creative writing and literature for educators is the first graduate program in the nation to focus on the needs of middle- and high-school teachers who teach both creative writing and literature. Its primary goal is to enhance graduates’ abilities to teach through a better understanding of the issues and practices facing writers and readers and the connections between both areas.

Teaching creative writing requires an understanding of the creative and analytical processes of both the writer and the reader. FDU’s program examines how writers create and revise with a focus on how meaning is created (the “writerly” process) and combines it with exposure to critical analysis from the readers’ point of view (the “readerly” process). By combining and connecting writerly and readerly approaches, the M.A. program enhances educators’ abilities to teach both creative writing and literature. After a three-day weekend residency, students complete the remaining course work online, working with a renowned creative writing and literature faculty.

Students in the M.A. in creative writing and literature program learn from an accomplished faculty of literary experts and published poets and authors. Faculty members include a finalist for the National Book Award and a winner of the National Magazine Award.

The program is offered under the auspices of the department of literature, language, writing and philosophy, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

The Curriculum

All students begin with the foundation course CWL78001 Reading Like a Writer, which introduces the practice of writerly exegesis with a focus on how meaning is created. Subsequent writing courses are designed specifically to provide both a creative and writerly/analytical experience in the major genres educators are likely to see in student work. The literature courses offer greater breadth and enriched understanding and connection to the advanced
Creative Writing and Literature for Educators

readily aspects of the literature often taught in high school, including traditional literature (Shakespeare, young adult literature); non-Western literature (African literature, world literature); intercultural literature (ethnic American literature); and contemporary literary issues (non-linear narrative, theoretical rewrites).

Requirements for the Master of Arts Degree
To earn the M.A. degree, students must attend the beginning residency and complete these seven courses:

Foundation Course Credits
CWLT8001 Reading Like a Writer.................................4

Writing and Critiquing Courses (one from each genre)
CWLT8101 Writing and Critiquing Fiction......................4
CWLT8102 Writing and Critiquing Poetry.......................4
CWLT8103 Writing and Critiquing (Creative) Nonfiction........4
CWLT8104 Writing and Critiquing Dramatic (and Cinematic) Writing ..........4

Literature Courses (two required)
CWLT8204 Reading Contemporary African Writers...............4
CWLT8206 Contemporary World Literature....................4
CWLT8207 Young Adult Literature: Beyond Harry Potter...............4
CWLT8209 International Short Story..........................4
CWLT8210 Tropes of Reading — Reading Tropes...............4
CWLT8211 Modern Poetry..................................4
CWLT8212 Shakespeare...................................4

Residency Requirement
The M.A. program includes a three-day weekend residency requirement in late June. Students live on FDU’s Florham Campus in Madison, New Jersey, where they meet with instructors and participate in such activities as lectures, critical workshops, generative workshops, panel discussions, analysis seminars and readings. Subsequent course work is completed through online correspondence with instructions and instructor-led online workshops and discussions.

The program’s low-residency requirement allows students to enroll whose work and family obligations would otherwise prevent them from attending a traditional, full-time graduate program. The online component provides additional flexibility and enables students to receive individual feedback from fellow students as well as readers and writers throughout the country.

For Information
For more information go to http://gradwriting.fdu.edu or contact the Office of the M.A. in creative writing and literature for educators, department of literature, language, writing and philosophy, Fairleigh Dickinson University, 285 Madison Avenue, M-MS3-01, Madison, New Jersey 07940, at (973) 443-8632.

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.

Creative Writing and Literature for Educators
Department of Literature, Language, Writing and Philosophy

CWLT8000 2 Credits
Creative Writing and Literature for Educators Residency
Three-day residency for M.A. in creative writing and literature for educators.

CWLT8001 4 Credits
Reading Like a Writer
This course focuses on reading in a writerly way — exploring how meaning is created from a writer’s perspective. The emphasis is on close reading and careful analysis of the bones of the text — structure (narrative, poetic, dramatic); point of view; style; tone; diction; sound, etc.

CWLT8101 4 Credits
Writing and Critiquing Fiction
In this course, students will create and revise a short work of fiction. The emphasis is not on the completed product but rather on the strategies of critiquing and revision that are developed through common readings and discussions. To that end, students and instructor will comment on both the writing and critiques in online workshops. Critiques of the writing use close readings to focus on writerly issues of structure, point of view, style, tone, diction, etc. Commentary on the critique will focus on usefulness to the writer and to work.

CWLT8102 4 Credits
Writing and Critiquing Poetry
In this course, students will create and revise two poems. The emphasis is not on the completed product but rather on the strategies of critiquing and revision that are developed through common readings and discussions. To that end, students and instructor will comment on both the writing and critiques in online workshops. Critiques of the writing use close readings to focus on writerly issues of structure, prosody, line, style, tone, diction, etc. Commentary on the critiques will focus on usefulness to the writer and to work.

CWLT8103 4 Credits
Writing and Critiquing (Creative) Nonfiction
Students create and revise a short work of non-fiction. The emphasis is not on the completed product but rather on the strategies of critiquing and revision that are developed through common readings, discussions and critiques in online workshops. Critiques of the writing use close readings to focus on writerly issues of structure, point of view, style, tone, diction, etc.

CWLT8104 4 Credits
Writing and Critiquing Dramatic (and Cinematic) Writing
Students create and revise a short screenplay or a stage play. The emphasis is not on the completed product but rather on the strategies of critiquing and revision that are developed through common readings, discussions and critiques in online workshops. Critiques of the writing use close readings to focus on writerly issues of dramatic structure, point of view, visual storytelling, dialog, style, etc.

CWLT8121 4 Credits
Comedy, Satire and Parody
An approach to a range of comic genres, from the perspective of the writer and performer; everything from American standup, comic sketches and situational comedy to classic literary satire, parody and farce from around the world. The class will look at joke structure, creation of comic personas and the evolution of comic technique, with students trying their hand from time to time at writing within the various comic genres themselves.
Creative Writing and Literature for Educators

CWLT8124
3 Credits
Teaching Composition: Theory and Practice
This course will explore current and long-standing theoretical perspectives and pedagogical practices for teaching writing in a first-year composition program. Students will consider curricular, social, political, pedagogical and theoretical ideas and practices that shape the teaching of writing. The course is free to FDU creative writing and literature for educators students taking two courses. Pass/no credit. Note: This includes required practicum CWLT8125 Practicum for Teaching Composition: Theory and Practice.

CWLT8125
1 Credit
Practicum for Teaching Composition: Theory and Practice
Required practicum for CWLT8124 Teaching Composition: Theory and Practice. Composition theory in a classroom setting. In order to observe, evaluate and apply composition theory studied in CWLT8124 Teaching Composition: Theory and Practice. Course is free to FDU creative writing and literature for educators students taking two courses. Pass/no credit. Prerequisite/corequisite: CWLT8124 Teaching Composition: Theory and Practice.

CWLT8204
4 Credits
Reading Contemporary African Writers
This course focuses on how contemporary African writers challenge or redefine their societies; conventional values, usages and beliefs. Online discussions — through a close reading of poems, stories, plays, novels and memoirs — explore the ways language both carries and subverts cultural assumptions. Interpretations of primary texts focus on the aesthetic choices African writers make in response to very different social realities.

CWLT8206
4 Credits
Contemporary World Literature
This course examines changing literary conceptions of the world from perspectives influenced by race, class, gender and sexuality, through contemporary post-colonial fiction from India, Indonesia, Jamaica and Zimbabwe. The course also analyzes how the narrative techniques employed in these novels fuse the political with the aesthetic in constructing national identities.

CWLT8207
4 Credits
Young Adult Literature: Beyond Harry Potter
Survey of young adult literature of the mid to late-20th century. Examines how this relatively new genre reflects growing changes within culture and society. Students will read classics and novels that are standard in high-school curricula and consider issues including transition to adulthood, sexuality, conflicts between youth and parents, fantasy, responsibility and authority.

CWLT8209
4 Credits
International Short Story
Focusing on short stories written in the last few decades, the course will emphasize unique features of the form along with elements of craft that it shares with other narrative genres. Students will study works from a variety of national traditions, in English and translation, asking how cultural identity affects setting, character, conflict and theme.

CWLT8210
4 Credits
Modern Poetry
American poets, mostly written within the last millennium, both as literary texts and in performance. Students read plays by a variety of playwrights, focusing on what makes them uniquely American, uniquely contemporary and uniquely dramatic in their structure, stagecraft and means of conveying character, conflict and theme.

CWLT8211
4 Credits
Irish Literature
This graduate course surveys the literature of Ireland: a millennium-and-a-half of multilingual production often characterized by eccentricity and genius. Special topics include the use of traditional materials for contemporary creative writing.

CWLT8212
4 Credits
Contemporary American Poetry
Study of work written within the last 20 years by seven living American poets, focusing on how they create an identifiable voice, a unique poetic language and a poetic universe undeniably their own. Students will read a volume of poetry by each of the featured poets, concentrating particularly on how craft and form generate meaning.

CWLT8216
4 Credits
Contemporary American Drama
This course focuses on American drama from the 1960s through the first decade of the new millennium, both as literary texts and in performance. Students read plays by a variety of playwrights, focusing on what makes them uniquely American, uniquely contemporary and uniquely dramatic in their structure, stagecraft and means of conveying character, conflict and theme.

CWLT8218
4 Credits
Graphic Novels
The course will focus on recent work by comic book writers and graphic book novelists, mostly written within the last 30 years, with two exceptions, the early work of Rodolphe Töpffer (the 19th-century parent of this medium) and the first work by Siegel and Schuster (1938). These two works will be used as a basis for understanding the evolution of this medium and its genres. Students will primarily read complete comic compendia and graphic novels, rather than scattered, single issues or anthologies, focusing on how graphic novelists and comic writers craft both plot and dialogue while operating within a framework which assumes that the text will be indivisibly complemented with images. The writers studied will include, among others, Alan Moore, Brian Michael Bendis, Alison Bechdel, Marjane Satrapi, Marguerite Abouet, Gene Luen Yang and Art Spiegelman.

CWLT8220
4 Credits
Contemporary American Poetry
Criminal Justice
(M.A.)

Fairleigh Dickinson University's School of Criminal Justice, Political Science and International Studies offers a Master of Arts in criminal justice. The program is designed to skillfully integrate theory and practice into a holistic, engaging and challenging course of study that provides students with advanced knowledge and understanding of the United States criminal justice system. Designed to position graduates for success, the program focuses on developing appreciable knowledge and understanding of crime and the criminal justice system, as well as developing discernable skill sets and competencies necessary for pursuing and/or advancing one’s professional career, emphasizing the importance of critical thinking, problem solving, decision making, effective communications, social research and professional development.

The program’s core curriculum provides a foundation in the concepts of social order and control, the legal and philosophical principles of the United States Constitution, the legislation of criminal laws, the theoretical causality of criminal behavior, crime prevention, the treatment and remediation of criminality, the analysis of society’s changing response to crime, the development and influence of public policy on the administration of justice and the scientific methods for conducting social research and statistical analysis.

Recognizing student’s needs and interests for professional development and acquiring specialized knowledge and understanding, the curriculum provides students the option to select from a wide array of courses in fulfilling 18 of the 36-credit program. Such courses examine the role and influence of politics within the criminal justice system, ethics, public policy, policy analysis, social justice and victimization, risk reduction, comparative criminal justice systems, transnational crime, leadership and emerging issues in crime and justice. Students can also select courses that focus on a host of specializations that include leadership, social service advocacy, learning theory and practice, college instruction and professional development. The final course in the curriculum, CRIM8000 Critical Analysis of Criminal Justice, affords students the opportunity to conduct independent research in areas of particular interest and application or take a comprehensive exam.

Two areas of particular interest to students is the opportunity to study abroad at Wroxton College, the University’s campus in Oxfordshire, England, where students work closely with renowned British criminal justice professionals and academicians. Another feature of the curriculum is its Advanced Internship Program, which gives students the opportunity to gain credit and valuable experience working in the field. The program features approximately 200 different venues within local, state and federal criminal justice agencies, as well as many private and nonprofit organizations that serve and support the criminal justice system.

The 36-credit program can be completed in less than 18 months for full-time students, and between 18–24 months for part-time students. The program is available through traditional, campus-based courses offered in late afternoon and evening hours during the fall, spring and summer semesters. Many courses are also available online.

The program is offered under the auspices of the School of Criminal Justice, Political Science and International Studies, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

For Information
For information, contact Dr. James Kenny, professor of criminal justice and graduate program coordinator, at kenny@fdu.edu or (201) 692-2461.

Admission Requirements
Admission to the program is based on an applicant’s demonstrated interest, aptitude and motivation to successfully undertake and complete master’s-level studies. This will be determined by the following minimal requirements and indicators:

1. A bachelor’s degree from an accredited college or university.
2. Official transcripts from all institutions of higher learning attended.
3. A cumulative undergraduate grade point ratio of at least 3.00 on a 4.00 scale.
4. Performance on the Graduate Record Examinations (GRE), which may be waived.
5. A 250- to 500-word personal essay expressing one’s interest for applying to the program.
6. Two letters of recommendation attesting to the applicant’s interest and ability to undertake graduate-level studies.
7. Personalized interviews may be considered by the school’s Admissions Committee.
8. Applicants under consideration may be required to complete an abbreviated research paper that demonstrates their ability for effective writing.

Requirements for the Master of Arts Degree

Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM6000</td>
<td>Professional Seminar in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM6005</td>
<td>Advanced Criminological Theory</td>
<td>3</td>
</tr>
<tr>
<td>CRIM6010</td>
<td>U.S. Constitution, Public Policy and Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM6015</td>
<td>Research Methods in Criminal Justice and Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRIM6020</td>
<td>Statistics and Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CRIM8000</td>
<td>Critical Analysis of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Elective Courses (18 credits)

Choose six course from below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM7020</td>
<td>Ethics, Politics and Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7025</td>
<td>Comparative Criminal Justice Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7030</td>
<td>Principles of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7060</td>
<td>Social Justice Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7065</td>
<td>Crime, Victimization and Risk Reduction</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7070</td>
<td>Contemporary Issues in Crime and Justice</td>
<td>3</td>
</tr>
</tbody>
</table>

*Waivers for applicants who do not meet the grade point ratio or standardized test scores will be considered on an individual basis.

*Waivers for applicants who do not meet the grade point ratio or standardized test scores will be considered on an individual basis.
Criminal Justice

CRIM7080
Politics and Policies of Criminal Justice .......................... 3

CRIM7081
Civil Rights and the Administration of Justice ................... 3

CRIM7082
Crime and Punishment ............................................. 3

CRIM7090
Professional Development Seminar ............................. 3

CRIM6010
3 Credits
U.S. Constitution, Public Policy and Criminal Justice
This course examines emerging issues as they influence the United States Constitution, public policy and the criminal justice system. Topics such as criminal procedure, individual rights, gun control, decriminalization of drugs, social justice, crime prevention, juvenile justice, sentencing policies, incarceration and capital punishment will be addressed.

CRIM6015
3 Credits
Research Methods in Criminal Justice and Criminology
This advanced course in social research exposes students to the methods and techniques associated with conducting theoretically based research. It addresses processes associated with identifying and defining problems and developing hypotheses, experimental design, surveys, testing instruments, gathering and analyzing data and preparation of reports.

CRIM6020
3 Credits
Statistics and Data Analysis
This course addresses the basic concepts and methods of statistics applied within criminal justice and social science research. Topics covered include basic statistical methodology; exploratory data techniques; experimental design; sample distributions; interval estimation; inference; comparative analysis by parametric, nonparametric and robust procedures; analysis of variance (one-way); linear and nonlinear regression; analysis of covariance; correlation and regression; and an introduction to statistical analysis using Statistical Package for the Social Sciences (SPSS).

CRIM7020
3 Credits
Ethics, Politics and Justice
This course examines classical and contemporary theories and philosophies relevant to ethical thought and behavior in relationship to the administration of justice and navigating politics within the workplace. Ethical issues confronting criminal-justice practitioners are explored through the use of case studies and critical incidents, and examining appropriate and applicable strategies.

CRIM7025
3 Credits
Comparative Criminal Justice Systems
This course will conduct a comparative analysis between the criminal justice system of the United States with those of other major countries throughout the world. The similarities and differences between the policing, adjudication and penal systems will be discussed. Issues such as alternatives to incarceration, technologies utilized and legal mandates will be examined.

CRIM7030
3 Credits
Principles of Leadership
The objective of this course is to examine the principles, practices and complexities of effective leadership. The course will also examine the skills and competencies needed to be an effective leader. The benefits of effective leadership and the consequences of ineffective leadership in an organization will be studied.

Online Application
To apply online, go to http://view2.fdu.edu/admissions/graduate-admissions/apply-for-graduate-admission-at-fdu/.

Tuition and Financial Aid
Information on tuition costs and any applicable financial support is available by going to http://www.fdu.edu.

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.

Criminal Justice
School of Criminal Justice, Political Science and International Studies

CRIM6000
3 Credits
Professional Seminar in Criminal Justice
This course provides a comprehensive review, critique and analysis of the United States criminal justice system in context to examining the concepts of social order and control, the philosophical underpinnings of the United States Constitution and the influence of public policy. Emphasis will be placed on examining the independent and causal relationships of police and law enforcement, courts and adjudications and the correctional system.

CRIM6005
3 Credits
Advanced Criminological Theory
This course will take a vertically integrative perspective on criminological theory, to include examining crime and crime theory and various forms of criminal behavior. Taking an implicit systems-theoretical look at crime and delinquency, it will provide tools for determining which theories provide the most explanatory power in specific criminal contexts. The course will also examine criminological thought in areas such as cyber crime, terrorism, human trafficking, environmental crime, hate crimes and other current and thematic emerging issues.
matters in the criminal justice system will be reviewed. Prerequisite: CRIM6000 Professional Seminar in Criminal Justice.

CRIM7081
3 Credits
Civil Rights and the Administration of Justice
This course aims to help students develop a firm understanding of the approaches used by the U.S. Supreme Court to define the boundaries of civil rights and liberties through its interpretation of the United States Constitution. It will examine the nature, application and extent of a special group of protections under the U.S. Constitution, including the freedom of expression, privacy, freedom of religion, equal protection under the laws, due process and the rights of the accused. Prerequisite: CRIM6000 Professional Seminar in Criminal Justice.

CRIM7082
3 Credits
Crime and Punishment
The U.S. has the highest incarceration rate in the world. This course confronts mass imprisonment and examines the key social forces shaping penal practice in the U.S. such as morality, economics and politics. Topics include prison violence, penal state, overcrowding and the efficacy of penal institutions. In addition, the course encompasses an analysis of the emergence of alternative systems of punishment and control. Prerequisite: CRIM6000 Professional Seminar in Criminal Justice.

CRIM7085
3 Credits
Advanced Internship in Criminal Justice
The course provides individually designed internships within federal, state and local police/law enforcement agencies, courts and adjudication, corrections and probation, private security, juvenile justice, crime victims’ advocacy and child protection. Students develop hands-on experience in all facets of the respective agency that they select. The internship provides the students with insight, experience and an available network of professional colleagues.

CRIM7090
3 Credits
Professional Development Seminar
This course addresses key thematic areas critical to recognizing and developing one’s professional effectiveness. Topics covered include effective communications, emotional and social intelligence, negotiations and conflict management, problem solving, decision making and strategic planning.

CRIM77800
3 Credits
Independent Studies
Students are afforded the opportunity to conduct independent studies in collaboration with and under the direction of a faculty member after consultation with the school’s director.

CRIM8000
3 Credits
Critical Analysis of Criminal Justice
This course represents a synthetic and critical analysis of key concepts and principles addressed within the criminal justice graduate program. Topics covered include, but are not limited to: social order and control, social contract theory, social justice and crime, statistics and social research, the U.S. Constitution and government, politics and public policy, crime prevention and analysis, criminological theory, victimization, criminal law, police and law enforcement, the courts and adjudication system and correctional system. The course culminates with successful completion of a master’s research project or comprehensive examination. Details and requirements for both are addressed at the beginning of the course. Prerequisites: CRIM6000 Professional Seminar in Criminal Justice, CRIM6005 Advanced Criminological Theory, CRIM6010 U.S. Constitution, Public Policy and Criminal Justice, CRIM6015 Research Methods in Criminal Justice and Criminology and CRIM6020 Statistics and Data Analysis.

CRIM7800
3 Credits
Cybersecurity and Information Assurance
(M.S.)
Hardly a day goes by without some news on cyberattacks. As the number of cyberattacks keeps increasing every day, clearly more cybersecurity professionals will be needed to plan, implement, upgrade, maintain and monitor security measures to protect the information infrastructure, computer networks and systems and digital data of business organizations and local, state and federal agencies. Consequently, the cybersecurity profession offers excellent career opportunities, outstanding average starting salary, excellent median long-term salary, good job-growth projection and great career fulfillment including protecting the nation’s information infrastructure.

Fairleigh Dickinson University is officially designated as a National Center of Academic Excellence in Cyber Defense Education (CAE-CDE) institution by the National Security Agency (NSA) and the Department of Homeland Security (DHS). FDU’s Master of Science in cybersecurity and information assurance (CSIA) degree program is created in response to meet the challenges in the field of CSIA. The program prepares its graduates for employment or further advanced study, including doctorates, in this field and other related areas. The program is facilitated and supported by the creation of a state-of-the-art Cyber Defense and Digital Forensics Lab and the recent enhancement of several computer and networking labs.

Students in the program will learn the fundamentals of operating systems, computer networks, cybersecurity, applied cryptography, penetration testing and vulnerability analysis. With the foundational courses as stepping blocks, students move on to take advanced courses in one of the two focus areas: network security administration and secure software development, satisfying the requirements of CAE-CDE knowledge units of those focus areas as specified by NSA and DHS. In particular, students will learn to establish information security protocols, build firewalls and defend against security intrusions, use encryption and protect information, regulate access to data, establish virus-protection
systems, implement business continuity and disaster-recovery plans, conduct penetration tests and analyze system vulnerabilities, develop secure software and help resolve information technology (IT) issues related to security. As a culmination of their studies, students are encouraged to work on a project under the supervision of a faculty adviser or to undertake internship to obtain practical work experience.

The program is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

**Admission Requirements**

1. Graduation from an accredited college or university with a satisfactory academic record.

2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in CSIA with a minimum cumulative grade point ratio (CGPR) of 3.00 and no grade below C or is a graduate of FDU’s computer science, electrical engineering, information technology or closely related programs with an undergraduate CGPR of 3.00 or is a graduate of such programs from other institutions with an undergraduate CGPR of 3.50. This GRE waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. (The GRE requirement also is waived for applicants who have completed a master's degree from a regionally accredited college or university in the United States.)

3. Three letters of recommendation.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

**Requirements for the Master of Science Degree**

1. Students admitted to the program may be required to fulfill a set of prerequisite courses, which can be waived based on their academic credentials. They must earn a CGPR of at least 2.75 for the prerequisite courses if required or be subject to dismissal from the program. They may take no more than 6 credits of regular graduate (core or elective) courses before completing all of the prerequisites.

2. Students must successfully complete 30 credits, including 15 credits of core requirements and 15 credits of electives, beyond any required prerequisites. In consultation with an academic advisor, students can choose five courses (15 credits) from a list of approved electives based on their interests and career goals. Alternatively, they are encouraged to concentrate on one of two focus areas, network security administration and secure software development, each with three courses (9 credits), and to choose two more courses (6 credits) from the list of approved electives. Students must earn a CGPR of at least 2.75 for the 30 credits beyond the prerequisite courses.

**Prerequisite Courses (18 credits)**

The prerequisite courses for the M.S. in cybersecurity and information assurance program are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5505</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5525</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5555</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5565</td>
<td>Assembly Language or</td>
<td></td>
</tr>
<tr>
<td>CSCI3249</td>
<td>Computer Organization or</td>
<td></td>
</tr>
<tr>
<td>EENG2287</td>
<td>Microprocessor System Design I</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional prerequisite courses may be required if the students did not graduate from STEM-related baccalaureate degree programs. STEM refers to science, technology, engineering and mathematics. Prerequisite courses will be determined through faculty review of students’ undergraduate transcripts of records.

**Core Requirements (15 credits)**

The required core courses for the M.S. in cybersecurity and information assurance program are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6638</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6738</td>
<td>Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6740</td>
<td>Applied Cryptography</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6870</td>
<td>Penetration Testing and Vulnerability Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (15 credits)**

Students are encouraged to take three courses (9 credits) from one of the following two focus areas and two more courses (6 credits) from the list of approved electives as provided below. Alternatively, students can also take any five courses (15 credits) from the approved electives based on their interests and needs.

**Electives for Network Security Administration Focus**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6863</td>
<td>Supply Chain Security and Systems Certification</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6869</td>
<td>Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6873</td>
<td>Firewalls and Intrusion-detection Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives for Secure Software Development Focus**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6620</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6836</td>
<td>Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6860</td>
<td>Secure Software Development and Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Approved Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI6620</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6623</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6811</td>
<td>Advanced Special Projects</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6836</td>
<td>Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6860</td>
<td>Secure Software Development and Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>
Credits
CSCI6863  Supply Chain Security and Systems Certification......... 3
CSCI6869  Network Security..................................... 3
CSCI6873  Firewalls and Intrusion-detection Systems.................. 3
CSCI7783  Information Security.................................... 3
CSCI7870  Linux System Administration.............................. 3
CSCI8891  Internship/Work Experience............................... 3

Course Descriptions

Education

Education for Certified Teachers (M.A.)
See this page.

Educational Leadership (M.A.)
See page 121.

Learning Disabilities (M.A.)
See page 122.

Mathematical Foundations (M.A.)
See page 125.

Teaching (M.A.T.)
See page 126.

Teaching English as a Second/Foreign Language TESL/TEFL (M.A.)
See page 129.

These programs are offered under the auspices of the Peter Sammartino School of Education, University College: Arts • Sciences • Professional Studies, Metropolitan Campus. Programs are available at the Florham Campus, Madison, New Jersey; the Metropolitan Campus, Teaneck, New Jersey; and off-site locations, see individual programs for specific locations.

Peter Sammartino School of Education
The Peter Sammartino School of Education offers master’s degrees in various specialties within education, allowing working teachers to further their careers. Persons with a bachelor’s degree but no teaching certification are given the opportunity to earn certification and enter the teaching profession. The School is part of University College: Arts • Sciences • Professional Studies.

Education for Certified Teachers (M.A.)
The Master of Arts in education for certified teachers (MACT) is a 36-credit program that allows teachers to pursue specializations while attaining their master’s degrees. Each program is unique in that teachers can graduate with an 18- or 21-credit specialization certificate or state certification including the 12 credits leading to a New Jersey Supervisor License. Certified teachers with a New Jersey Standard Teaching License who complete the master’s degree and have the designated approved 12 credits with three years of successful teaching experience will be eligible to apply for the New Jersey Supervisor License. The areas of specialization that a certified teacher can choose from are:

- Bilingual/Bicultural Education Specialist Certificate — 12-credit approved New Jersey State Teacher Certification in bilingual/bicultural education as a second certification, plus 12-credit Supervisor License and 12 credits to complete a master’s degree;
- English as a Second Language (ESL) FDU Certificate and New Jersey Certification (ESL) — 18-credit FDU Certificate or 18-credit approved New Jersey State Certification in ESL as a second certification, plus 12-credit Supervisor License and 6 credits to complete a master’s degree;
- Instructional Technology Specialist Certificate (ITC) — 18-credit FDU Certificate plus 12-credit Supervisor License and 6 credits to complete a master’s degree;
- Literacy/Reading Specialist (LRS) and New Jersey Reading Specialist Certification — 18-credit FDU Certificate, an additional 12 credits to complete the 30-credit approved New Jersey Reading Specialist Certification/Endorsement plus 6 credits to complete the master’s degree embedded with the 12-credit Supervisor License.
- Dual Program in Literacy/Reading and Multisensory Reading — 18-credit FDU Certificate and additional 18 credits to complete the 36-credit master’s degree. This program includes the 12-credit
Education • Education for Certified Teachers

Orton-Gillingham Dyslexia Specialist Certificate.

• Professional Studies Concentration (PROST) — 36-credit selection from generalist options in all MACT programs with required 3-credit Master’s Seminar and may include 12-credit Supervisor License, appropriate for New Jersey Provisional Alternate Route candidates; and

• Teacher of Students with Disabilities (TSD) — 21-credit approved New Jersey Certification as a second certification with 12-credit Supervisor License and 3-credit Master’s Seminar to complete the master’s degree.

The M.A. in education for certified teachers is offered under the auspices of the Peter Sampartino School of Education, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey, and is available at the Metropolitan Campus and selected off-site locations and selected community colleges. Cohort groups may be established in school districts with sufficient enrollment and are open to teachers in local districts.

The School had an aggregate pass rate of 99 percent on the HEOA-Title II Reporting for the 2015–2016 academic year. The corresponding statewide pass rate for the same period was 98 percent.

Program Information

• All programs incorporate standards-based teaching methods that address the Interstate Teacher Assessment and Support Consortium (InTASC), New Jersey Core Curriculum Content Standards (NJCCCS) and the Common Core State Standards.

• An approved 12-credit sequence of courses within the 36-credit M.A. degree will prepare the candidate to apply for a New Jersey Supervisor’s License with a complete master’s degree and three years of successful teaching experience.

• Instructional technology is integrated into all teaching strategies. Web-based courses and other distance-learning modalities are utilized, as appropriate, to diversify course delivery and model the use of various technologies for instruction.

• The FDU Certificates and the New Jersey Certifications and Endorsements may be taken without completion of the M.A.

• Each of the 18-credit certificate programs are offered in a two-year sequence of courses. Students take an average of 9 credits per year and can expect to complete the 18-credit certificate portion of the program within a two-year cycle.

• Candidates are accepted for fall, spring and summer semesters. Applicants must specify specialization program or select the professional studies program, a generalist degree.

• There is a one-time application fee of $40.00 required. This fee may be waived if the candidate meets with an admissions adviser or department faculty member.

• Tuition rate is reduced with no hidden fees.

• Admission to the M.A. in education for certified teachers (MACT) is subject to approval by the School of Education pursuant to the admissions policy for the University that may apply.

• Admission packages are available from the School of Education, (201) 692-2862 on the Metropolitan Campus or from the Graduate Admissions Office, (201) 692-2553.

• For specific program information, contact the School of Education at (201) 692-2862 or email milton3@fdu.edu.

Admission and Matriculation

Admission Process

All candidates who meet the following general criteria will be accepted as pre-matriculated students in the M.A. in education for certified teachers (MACT) program:

1. Application and interview.
2. Transcripts, official or unofficial, from all undergraduate and graduate institutions showing an undergraduate grade point ratio (GPR) of 3.00; if lower, provisional acceptance until a 3.25 GPR is achieved and maintained in the first 9 credits taken at FDU.
3. Standard Teacher License. (Exception: Provisional Teacher License for candidates enrolled as New Jersey Alternate Route candidates.)
4. Two letters of recommendation from individuals familiar with the candidate’s recent performance; one should be from an immediate supervisor.
5. Official transcripts from all undergraduate and graduate institutions.
6. A cumulative GPR of at least 3.25 in the first 9 credits of the M.A. program, which must be maintained at the same level to complete the program.

Requirements for the Master of Arts Degree

Core Courses (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction (except in TSD and ESL programs)</td>
</tr>
<tr>
<td>EDUC6702</td>
<td>Curriculum and Instruction: Theory and Practice</td>
</tr>
<tr>
<td>EDUC6703</td>
<td>Supervision of Instruction: Personnel and Evaluation</td>
</tr>
<tr>
<td>EDUC6704</td>
<td>Change: Curriculum Development and Program Improvement</td>
</tr>
<tr>
<td>EDUC6718</td>
<td>Curriculum/Program Evaluation and Student Assessment</td>
</tr>
<tr>
<td>EDUC7674</td>
<td>Master’s Seminar: Research in Specialization</td>
</tr>
</tbody>
</table>

Specialization Programs (18 credits)

Candidates select from one of the following programs described in detail on the following pages:

• Bilingual/Bicultural Education (BBE) — requires 12 credits
• English as a Second Language (ESL)
• Instructional Technology Specialist (ITS)
• Literacy/Reading Specialist (LRS)
• Professional Studies Concentration (PROST)
• Teacher of Students with Disabilities (TSD) — requires 21 credits

Bilingual/Bicultural Education (BBE) Specialist Certificate Program

The bilingual/bicultural education programs require teachers who can provide content-specific instruction in an environment that promotes student bilingual/bicultural development. Course work that leads to the bilingual/bicultural education New Jersey teacher endorsement provides certified teachers with the knowledge and skills they need to meet this dual responsibility.

Fairleigh Dickinson University’s Bilingual/Bicultural Education Certification Program was developed as a 12-credit con

*These four courses lead to a New Jersey Supervisor License.
Bilingual/Bicultural Education Specialist Certificate Program Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6550</td>
<td>Methodology in Bilingual/Bicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6551</td>
<td>Language Acquisition in Bilingual/Bicultural Contexts</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574</td>
<td>Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6654</td>
<td>Literacy Development for Second-language Learners</td>
<td>3</td>
</tr>
</tbody>
</table>

The 12-credit certification program may be applied toward a 36-credit M.A. in education for certified teachers degree.

English as a Second Language (ESL) Specialist Certification Program

The field of teaching English to speakers of other languages requires highly specialized training. The primary focus of Fairleigh Dickinson University's English as a Second Language Specialist Certification Program is on the language and culture of the United States and effective second-language methodology.

Fairleigh Dickinson's ESL Specialist Certification Program for certified teachers provides an 18-credit concentration that may be applied toward a 36-credit M.A. in education for certified teachers and includes the 18 credits required for a second New Jersey certification as Teacher of ESL.

At the end of the English as a Second Language Specialist Program, teachers will have completed courses having:

- a focus on second-language acquisition, research and methodology, addressing the diverse needs of students, first- and second-language acquisition and development of literacy skills for second-language learners;
- a concentration on curriculum development and authentic assessment practices aligned with WIDA Standards for ESL instruction in New Jersey and Common Core State Standards (CCSS); and
- a strong emphasis on field experiences in school settings with second-language learners.

The New Jersey Department of Education requires a demonstration of oral and written language proficiency in English for ESL certification. Students may meet this requirement by taking the Oral Proficiency Interview (OPI) and the Writing Proficiency Test (WPT) in English.

Required Courses for a Second New Jersey Certification in ESL (18 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6565</td>
<td>Second Language Acquisition: Methods and Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574</td>
<td>Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6631</td>
<td>Assessment in the Second-language Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6654</td>
<td>Literacy Development for Second-language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6661</td>
<td>The Multicultural Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

Instructional Technology Specialist Certificate (ITSC) Program

The School of Education offers the K–12 Instructional Technology Specialist Certificate (ITSC) Program for educators interested in specializing in the integration of technology throughout the curriculum. Candidates may elect to take only the 18 credits leading to the FDU Certificate and apply these credits to the 36-credit M.A. in education for certified teachers program.

ITSC candidates learn to:

- create cutting-edge curricula featuring seamless technology integration;
- strategically plan for the continuous growth of technology integration in the school and classroom; and
- take a leadership role in the initiation and assessment of new learning strategies which support state and national technology standards.

The ITSC curriculum is designed to accommodate both K–12 teachers as well as educators who have technology leadership roles in their schools or districts.

An option is available for offering the ITSC off-campus program in school districts with appropriate technology facilities. Special provisions are made to support and enhance K–12 technology initiatives in those districts choosing this option.

Instructional Technology Specialist Certificate Program Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
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<tbody>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6673</td>
<td>Integrating Literacy and Technology Across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7784</td>
<td>Multimedia Production</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7785</td>
<td>Internet for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7790</td>
<td>Seminar in Instructional Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7796</td>
<td>Projects Based on the Web</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7798</td>
<td>Special Topics in Instructional Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Other instructional technology courses that are offered may be substituted for a required instructional technology course, with the adviser’s approval.

Literacy/Reading Specialist (LRS) Certification Program

This program is designed to develop teachers to become leaders in the field of literacy and reading. This 30-credit Literacy/Reading Specialist program is approved by the New Jersey Department of Education for a second Endorsement/Certification license as a reading specialist with a master’s degree and two years of successful teaching. Candidates can take the 6 additional credits to complete the 36-credit M.A. in education for certified teachers including the 12 credits leading to a New Jersey Supervisor License.

A reading specialist is one who conducts in-service training of teachers and administrators, coordinates instruction for individuals or groups of pupils having difficulty learning to read, diagnoses the nature and causes of individuals’ difficulties in learning to read, plans developmental programs in reading for pupils, recommends methods and materials to be used in dis-
trict reading programs and contributes to the evaluation of the reading achievement of pupils.

In addition, the candidate with three years of successful teaching may select the four courses leading to a New Jersey Supervisor License.

Finally, for individuals who do not need state endorsement but want to learn more about current literacy research, balanced reading approaches and specific reading strategies, there is an alternative 18-credit FDU Certificate that will provide K–12 classroom teachers with a concentration of courses that will extend their knowledge and skills in language arts, literacy and reading.

New Jersey State Literacy/Reading Specialist Certification/Endorsement and Supervisor Certification (36 credits)

EDUC6582 Distance Learning: Children's Literature..............................................3
EDUC6605 Foundations in Reading I..........................................................3
EDUC6606 Foundations in Reading II.........................................................3
EDUC6607 Diagnosis of Reading Problems..................................................3
EDUC6609 Supervised Practicum in Reading.................................................3
EDUC6666 Supervised Practicum in Correction of Reading Problems.................3
EDUC6673 Integrating Literacy and Technology Across the Curriculum.............3
EDUC6702 Curriculum and Instruction: Theory and Practice*........................3
EDUC6703 Supervision of Instruction: Personnel and Evaluation......................3
EDUC6704 Change, Curriculum Development and Program Improvement**........3
EDUC6718 Curriculum/Program Evaluation and Student Assessment................3

**Course leads to a New Jersey Supervisor License — 12 credits with a master's degree and three years of teaching.

EDUC7674 Master's Seminar: Research in Specialization (Literacy/Reading)........3

Dual Program in Literacy/Reading and Multisensory Reading

This 36-credit program is designed for those who have completed, or wish to complete, the 12-credit Orton-Gillingham Dyslexia Specialist Certificate. In this program, candidates will hone their own literacy/reading knowledge by learning what research says about a balanced reading approach, including: 1) phonological, phonemic awareness and the importance of automaticity; 2) selection of appropriate, real literature and leveled texts to motivate, instruct and create lifelong readers; 3) development of specific reading comprehension skills, vocabulary and fluency development; and 4) exploration and use of informal alternative assessment instruments and multiple measures to inform instruction. In addition, students will learn how to assess learners' progress and differentiate instruction based upon each learner's developmental needs by participating in supervised practicum in reading.

This program does not lead to the New Jersey Department of Education endorsement/certification as a reading specialist. For individuals who wish to obtain this endorsement, they must take an additional 6 credits. For New Jersey Literacy/Reading Specialist Certification, candidates must have a current standard teacher license, two years of successful teaching experience and a master's degree. For those individuals who wish to obtain a Fairleigh Dickinson University certificate, there is an option to take just the 18 credits required for the certificate.

Courses for Orton-Gillingham Dyslexia Specialist Certificate (12 credits)

EDUC6601 Multisensory Reading I.................................................................3
EDUC6602 Multisensory Reading II...............................................................3
EDUC7603 Multisensory Reading III..............................................................3
EDUC7604 Multisensory Reading IV...............................................................3

Courses for Master of Arts in Education (6 credits)

EDUC6609 Supervised Practicum in Reading.................................................3
EDUC7674 Master's Seminar: Research in Specialization (Literacy/Reading)........3

For New Jersey State Certification in Reading/Literacy, students must take EDUC6705 Supervision of Instruction: Personnel and Evaluation and EDUC6718 Curriculum/Program Evaluation and Student Assessment for a total of 42 credits.

Requirements: For New Jersey Literacy/Reading Specialist Certification, candidates must have a current standard teacher license, two years of successful teaching experience and a master's degree.

Professional Studies Concentration (PROST)

The professional studies concentration is designed for New Jersey Provisional Teacher candidates and certified teachers who want a generalist master's degree. The New Jersey Provisional Teacher candidates who are in the process of completing the state-required 200 hours of instruction may select from the three identified courses, 9 credits, which parallel the course content. During this time, provisional candidates will be nonmatriculated students and, upon completion of these courses and receipt of a standard teaching certification from the New Jersey Department of Education, the candidates may proceed to elect a sequence of courses from the remaining
21 credits leading to the M.A. in education for certified teachers. Certified teachers may select from the 18 core courses and 18 credits from the specialization courses listed. This program will allow candidates to match their professional goals with the programs offered in the M.A. in education for certified teachers. The candidates can select from several specializations to fulfill their program requirements. Embedded within the 36-credit master’s degree are the 12 credits leading to a New Jersey Supervisor License with a master’s degree and three years of successful teaching. An adviser will work closely to monitor all candidates’ program selections. The professional studies concentration will allow teachers to develop their educational knowledge and skills to become more effective teachers.

**Professional Studies Concentration Course Requirements (15 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EDUC6584</td>
<td>3</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction*</td>
</tr>
<tr>
<td>EDUC6669</td>
<td>3</td>
<td>Advanced Field Placement**</td>
</tr>
<tr>
<td>EDUC6835</td>
<td>3</td>
<td>Effective Teaching and Effective Schools***</td>
</tr>
<tr>
<td>EDUC6893</td>
<td>3</td>
<td>Evaluation and Measurement in Education*</td>
</tr>
<tr>
<td>EDUC7674</td>
<td>3</td>
<td>Master’s Seminar: Research in Specialization (required course)</td>
</tr>
</tbody>
</table>

**Supervisor License Option (Some or all of 12 credits below)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>EDUC6702</td>
<td>3</td>
<td>Curriculum and Instruction: Theory and Practice***</td>
</tr>
<tr>
<td>EDUC6703</td>
<td>3</td>
<td>Supervision of Instruction: Personnel and Evaluation***</td>
</tr>
<tr>
<td>EDUC6704</td>
<td>3</td>
<td>Change: Curriculum Development and Program Improvement***</td>
</tr>
<tr>
<td>EDUC6718</td>
<td>3</td>
<td>Curriculum/Program Evaluation and Student Assessment***</td>
</tr>
</tbody>
</table>

*Courses provided off-site by the New Jersey State Provisional Training Program.
**Courses for Supervisor License — 12 credits, master’s degree plus three years of teaching.
***Other courses may be substituted after approval of adviser.

**Alternative Options to 12 credits for Supervisor License***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6661</td>
<td>3</td>
<td>The Multicultural Classroom</td>
</tr>
<tr>
<td>EDUC6740</td>
<td>3</td>
<td>Introduction to Students with Disabilities and Autistic Spectrum Disorders</td>
</tr>
<tr>
<td>EDUC7763</td>
<td>3</td>
<td>Human Relations and Conflict Resolution for Educators</td>
</tr>
<tr>
<td>EDUC7785</td>
<td>3</td>
<td>Internet for Educators</td>
</tr>
</tbody>
</table>

**Course Options for Generalist Educational Program (18 credits)**

Select 18 credits either from one section below or from several sections.

**Literacy/Reading Specialist Options without Certificate or State Endorsement***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC582</td>
<td>3</td>
<td>Distance Learning: Children’s Literature</td>
</tr>
<tr>
<td>EDUC6605</td>
<td>3</td>
<td>Foundations in Reading I</td>
</tr>
<tr>
<td>EDUC6606</td>
<td>3</td>
<td>Foundations in Reading II</td>
</tr>
<tr>
<td>EDUC6673</td>
<td>3</td>
<td>Integrating Literacy and Technology Across the Curriculum</td>
</tr>
</tbody>
</table>

**Teacher of Students with Disabilities Options without Certificate or State Endorsement***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6740</td>
<td>3</td>
<td>Introduction to Students with Disabilities and Autistic Spectrum Disorders</td>
</tr>
<tr>
<td>EDUC744</td>
<td>3</td>
<td>Foundations: Historical, Philosophical and Legal Issues Related to Disabilities</td>
</tr>
<tr>
<td>EDUC745</td>
<td>3</td>
<td>Principles and Practices of Collaboration and Inclusion</td>
</tr>
<tr>
<td>EDUC746</td>
<td>3</td>
<td>Learning Environment and Effective Management of Teaching and Learning</td>
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</tbody>
</table>

**Instructional Technology Options without FDU Certificate***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC675</td>
<td>3</td>
<td>Integrating Literacy and Technology Across the Curriculum</td>
</tr>
<tr>
<td>EDUC6784</td>
<td>3</td>
<td>Multimedia Production</td>
</tr>
<tr>
<td>EDUC7785</td>
<td>3</td>
<td>Internet for Educators</td>
</tr>
<tr>
<td>EDUC7796</td>
<td>3</td>
<td>Projects Based on the Web</td>
</tr>
</tbody>
</table>

**Mathematics Specialist Options without FDU Certificate***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH507</td>
<td>3</td>
<td>World of Mathematics: Number</td>
</tr>
<tr>
<td>MATH508</td>
<td>3</td>
<td>World of Mathematics: Algebra</td>
</tr>
<tr>
<td>MATH509</td>
<td>3</td>
<td>World of Mathematics: Geometry</td>
</tr>
<tr>
<td>MATH613</td>
<td>3</td>
<td>World of Mathematics: Mathematics in Science</td>
</tr>
<tr>
<td>MATH615</td>
<td>3</td>
<td>World of Mathematics: Integrating Technology in Mathematics</td>
</tr>
</tbody>
</table>

**Courses for Second New Jersey Certification***

Select one entire program listed below leading to state certification. These courses may ONLY be taken after first state certification has been granted to the candidate.

**Literacy/Reading Specialist — 50 Credits, Plus Two Years Teaching and Master’s Degree***

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6582</td>
<td>3</td>
<td>Distance Learning: Children’s Literature</td>
</tr>
<tr>
<td>EDUC6605</td>
<td>3</td>
<td>Foundations in Reading I</td>
</tr>
<tr>
<td>EDUC6606</td>
<td>3</td>
<td>Foundations in Reading II</td>
</tr>
<tr>
<td>EDUC6675</td>
<td>3</td>
<td>Diagnosis of Reading Problems</td>
</tr>
<tr>
<td>EDUC6689</td>
<td>3</td>
<td>Supervised Practicum in Reading</td>
</tr>
<tr>
<td>EDUC6666</td>
<td>3</td>
<td>Supervised Practicum in Correction of Reading Problems</td>
</tr>
</tbody>
</table>

*Other courses may be substituted after approval of adviser.
### Education • Education for Certified Teachers

#### Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EDUC6745</td>
<td>Principles and Practices of Collaboration and Inclusion</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7646</td>
<td>Learning Environment and Effective Management of Teaching and Learning*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7647</td>
<td>Multisensory Reading Instruction for Students with Reading Disabilities</td>
<td>5</td>
</tr>
<tr>
<td>EDUC7623</td>
<td>Diagnosis of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7624</td>
<td>Correction of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6740</td>
<td>Introduction to Students with Disabilities and Autistic Spectrum Disorders*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6744</td>
<td>Foundations: Historical, Philosophical and Legal Issues Related to Disabilities</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>EDUC6744</td>
<td>Foundations: Historical, Philosophical and Legal Issues Related to Disabilities</td>
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<tr>
<td>EDUC6745</td>
<td>Principles and Practices of Collaboration and Inclusion</td>
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<tr>
<td>EDUC7646</td>
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<tr>
<td>EDUC7647</td>
<td>Multisensory Reading Instruction for Students with Reading Disabilities</td>
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<td>Principles and Practices of Collaboration and Inclusion</td>
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*EDUC6631 Assessment in the Second-language Classroom*.............3

**EDUC6565 Second Language Acquisition: Methods and Curriculum**............3

***EDUC6704 Change: Curriculum Development and Program Improvement***............3

**EDUC6654 Literacy Development for Second-language Learners***.............3

**EDUC6661 The Multicultural Classroom***.............3

Teacher of Students with Disabilities — 21 credits

<table>
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M.A. Core Courses (15 credits)

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<tr>
<th>Course Code</th>
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<tr>
<td>EDUC6702</td>
<td>Curriculum and Instruction: Theory and Practice**</td>
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<tr>
<td>EDUC6703</td>
<td>Supervision of Instruction: Personnel and Evaluation**</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6704</td>
<td>Change: Curriculum Development and Program Improvement*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6706</td>
<td>Supervision of Instruction: Personnel and Evaluation**</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6718</td>
<td>Curriculum/Program Evaluation and Student Assessment**</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7621</td>
<td>Master's Seminar: Research in Specialization*</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions

See "Course Offerings," pages 130–143.

*EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders is a prerequisite or corequisite for all courses.

**It is recommended that students complete EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders during the first or second semester of their course work.

***EDUC6631 Assessment in the Second-language Classroom and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.

*EDUC6747 Multisensory Reading Instruction for Students with Reading Disabilities is a prerequisite or corequisite for all courses.

**EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.

*EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders is a prerequisite or corequisite for all courses.

**EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.
Educational Leadership (M.A.)

The Master of Arts (M.A.) in educational leadership requires a total of 36 credits of specific course work in the field of educational leadership and management. Students in the program will participate in cohort and mixed-study groups as they engage in a multiyear sequence of courses and field experiences that will emphasize the following areas:

1) The development of human relations skills to optimize the educational leadership graduate student’s ability to interact with teachers, colleagues, parents, students and other members of the school community;
2) Knowledge of effective strategies that promote higher student achievement;
3) Development of the skills and knowledge for creating a vision for effective schools and engaging the learning-community stakeholders in the process of creating and implementing an educational vision;
4) Assumption of the role of a leader in promoting systemic growth and utilizing available resources;
5) Development of the management skills required to effectively utilize available resources; and
6) Engaging the community and profession in the advocacy of public policy that promotes the success for all students in the learning community.

The program’s design and curriculum are based on the demands facing today’s schools, with a focus on developing a vision of a school as a community of learners. Graduates of the program develop competencies in the administrative strategies and skills that engage all stakeholders in the decision-making process and promote the true sense of a community of learners. To accomplish these goals, student learning will rely heavily on small-group interaction, simulations and problem-based learning activities. During the second year of the program, students will be able to apply the educational theory learned in formal course work through an intensive field experience in schools of outstanding practitioners.

Completion of the 36-credit M.A. program will qualify students to sit for the PRAXIS Examination in School Leaders Licensure Assessment (SLLA) and to apply for a certificate of eligibility required for appointment as a principal in the state of New Jersey. Individuals who have three years of teaching experience, an M.A. and the four-course sequence in supervision and curriculum offered in the program will be eligible to apply for a supervisor’s certificate under New Jersey Administrative Code requirements.

A post-master’s principal certification program is offered, see this page. These programs are offered under the auspices of the Peter Sammartino School of Education, University College: Arts • Sciences • Professional Studies, Metropolia

Admission Requirements

Admissions Process

All candidates who want to be considered for admission must meet the following criteria:

1) Submit a professional portfolio, which includes evidence of:
   • a standard teaching certificate,
   • successful teaching and
   • a writing sample.
2) Submit an undergraduate transcript indicating that the student has maintained a cumulative grade point ratio (CGPR) of 2.75. Students who have not maintained a 2.75 CGPR in undergraduate work may be accepted provisionally. Those students will be matriculated if they maintain a 3.25 CGPR through the first 9 credits of the M.A. program.
3) Submit two letters of recommendation (one from a supervisor) that address the following:
   • quality of teaching and evidence of commitment to the field of education and
   • potential for leadership.
4) Provide evidence of successful completion of PRAXIS and have an appropriate number of years of successful teaching experience.

Requirements for the Master of Arts Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDUC6701</td>
<td>Leadership in Learning Community and School</td>
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<tr>
<td>EDUC6702</td>
<td>Curriculum and Instruction: Theory and Practice*</td>
<td>3</td>
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<tr>
<td>EDUC6703</td>
<td>Supervision of Instruction: Personnel and Evaluation*</td>
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<td>EDUC6704</td>
<td>Change: Curriculum Development and Program Improvement*</td>
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<td>EDUC6706</td>
<td>Advanced Leadership Seminar</td>
<td>3</td>
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<tr>
<td>EDUC6716</td>
<td>School Finance, Facilities and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6717</td>
<td>School Law</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6718</td>
<td>Curriculum/Program Evaluation and Student Assessment*</td>
<td>3</td>
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<tr>
<td>EDUC6720</td>
<td>Educational Leadership Field-based Internship I</td>
<td>3-6</td>
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<tr>
<td>EDUC6721</td>
<td>Educational Leadership Field-based Internship II</td>
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<td>EDUC6722</td>
<td>Educational Leadership Field-based Internship III</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6723</td>
<td>Final Project: School-based Research</td>
<td>3</td>
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</tbody>
</table>

Post-master’s Principal Certification Program

This 30-credit, 10-course sequence is designed for teachers who hold a master’s degree, have at least five years of successful educational experience under a valid New Jersey certificate and wish to take courses solely for the purpose of obtaining a principal’s certificate. Students who have a New Jersey supervisor’s certificate would need only 18 credits (six courses) and a passing score on the School Leaders Licensure Assessment (SLLA). Evaluation of previous graduate school transcripts must be completed by an adviser, and a special program is planned that will achieve the sequence of courses of instruction required for certification as a principal.

*Required for Supervisor’s Certificate.
Learning Disabilities (M.A.)

The following degree and certificate programs in learning disabilities are available at FDU. Each takes into consideration the student’s educational background and career goals.

- Master of Arts in Learning Disabilities/Teacher of Students with Disabilities Certification, see page 123.
- Teacher of Special Education/Teaching exceptionalities Certification, see page 123.
- Learning Disabilities Teacher Consultant Certification, see page 123.
- Dyslexia Specialist Certificate and other Orton-Gillingham certificate programs, see pages 124–125.

These programs are offered under the auspices of the Peter Sammartino School of Education, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements

1. A bachelor’s or a master’s degree, with a minimum grade point ratio of 3.00 (out of a possible 4.00) in undergraduate or graduate work. Retention in the program is contingent upon maintaining a 3.25 academic average.

2. For students without a master’s degree, submission of the scores of the Graduate Record Examinations (GRE), the Miller Analogy Test or the PRAXIS Examination.

3. Two letters of recommendation.

4. A New Jersey Instructional Certificate is required for students seeking second certification as Teacher of Students with Disabilities or Learning Disabilities Teacher Consultant (LDTC).*

5. Candidates for LDTC certification also are required to have three years of successful, full-time teaching experience by the end of the program and to have experience teaching special populations.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Master of Arts in Learning Disabilities/Teacher of Students with Disabilities Certification

A 38-credit Master of Arts in learning disabilities is offered for licensed teachers seeking to develop expertise in working with pupils with learning disabilities or other exceptionalities. Teachers who successfully complete this program will be eligible for certification as Teacher of Students with Disabilities, the license required by the state of New Jersey for teaching pupils with learning disabilities or other disabilities in inclusive classrooms, resource centers or self-contained classrooms (see Teacher of Students with Disabilities Certification [nondegree] page 123).

Requirements

Basic Core (12 credits)

EDUC627 Orientation to School Testing.............3
EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders..................3
EDUC6746 Learning Environment and Effective Management of Teaching and Learning..........................3
EDUC6792 Assistive Technology for the Inclusive Classroom..........................3

Total Core........12

Specialization (15 credits)

EDUC6744 Foundations: Historical, Philosophical and Legal Issues Related to Disabilities..................3
EDUC6745 Principles and Practices of Collaboration and Inclusion..................3
EDUC6747 Multisensory Reading Instruction for Students with Reading Disabilities..........................3
EDUC7623 Diagnosis of Learning Disabilities*.............3
EDUC7624 Correction of Learning Disabilities*.............3

*Master’s degree programs, as well as special programs of a short-range nature, are available to candidates holding undergraduate or graduate degrees in a related field.

*Students may substitute EDUC6706 Advanced Leadership Seminar for EDUC6701 Leadership in Community and School.

*EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.
**Elective (9 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>Introduction to Autism Spectrum Disorders</td>
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<tr>
<td>EDUC6793</td>
<td>Education of Students with Moderate to Severe Disabilities</td>
</tr>
<tr>
<td>EDUC6797</td>
<td>Multisensory Mathematics Instruction for Students with Disabilities</td>
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**One-credit Electives (2 credits)**

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<tr>
<td>EDUC6612</td>
<td>Reading Comprehension</td>
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<tr>
<td>EDUC6614</td>
<td>Multisensory Mathematics Skills</td>
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<tr>
<td>EDUC6617</td>
<td>Study Skills</td>
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<tr>
<td>EDUC6660</td>
<td>Diagnosing Mathematics Disabilities and Strategies for Remediation</td>
</tr>
<tr>
<td>EDUC6668</td>
<td>Understanding Asperger Syndrome</td>
</tr>
<tr>
<td>EDUC6715</td>
<td>Updating LDTC Diagnostic Skills</td>
</tr>
<tr>
<td>EDUC6737</td>
<td>Phonemic Awareness</td>
</tr>
<tr>
<td>EDUC6845</td>
<td>Understanding IQ Testing</td>
</tr>
</tbody>
</table>

Note: EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders is a prerequisite or corequisite for all courses.

**Teacher of Students with Disabilities Certification (Nondegree Program)**

This is a nondegree program for licensed, regular classroom teachers who seek to develop expertise in working with students with exceptionalities in grades K–12. Teachers who successfully complete this program will be eligible for certification as Teacher of Students with Disabilities, the license required by the state of New Jersey's Department of Education for teaching children with disabilities in settings such as inclusive classrooms, resource centers or self-contained classrooms.

**Requirements**

Students must complete the following 21 credits.

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Note: EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders is a prerequisite or corequisite for all courses.

**Master of Arts in Learning Disabilities/Learning Disabilities Teacher Consultant (LDTC) Certification**

This 38-credit master's degree in learning disabilities is for licensed teachers with experience in special-education settings who wish to develop skills for diagnosing learning difficulties and planning instructional programs for pupils from preschool through grade 12. Teachers with three years of full-time teaching experience with special populations who successfully complete this program will be eligible for certification as Learning Disabilities Teacher Consultant (LDTC). This license is required by the state of New Jersey for serving in the LDTC capacity on a Child Study Team.

**Requirements**

**Basic Core (15 credits)**

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EDUC6626</td>
<td>Neurophysiological Basis of Learning Problems</td>
</tr>
<tr>
<td>EDUC6627</td>
<td>Orientation to School Testing</td>
</tr>
<tr>
<td>EDUC6740</td>
<td>Introduction to Students with Disabilities and Autistic Spectrum Disorders</td>
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</table>

*EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.

**Specialization (17 credits)**

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<td>Correction of Learning Disabilities</td>
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<td>EDUC8623</td>
<td>Practicum in Diagnostic and Remedial Techniques I</td>
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<tr>
<td>EDUC8628</td>
<td>Practicum in Diagnostic and Remedial Techniques II</td>
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**Electives (6 credits)**

Electives to be chosen from the courses below:

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<tr>
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<tr>
<td>EDUC6793</td>
<td>Education of Students with Moderate to Severe Disabilities</td>
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</tbody>
</table>

*EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.

**A minimum of B- in both EDUC6746 Correction of Learning Disabilities and EDUC7624 Correction of Learning Disabilities is required for admission to EDUC8623 Practicum in Diagnostic and Remedial Techniques I. A minimum of a B- in EDUC8623 Practicum in Diagnostic and Remedial Techniques I is required for admission to EDUC8628 Practicum in Diagnostic and Remedial Techniques II.**
Education • Learning Disabilities

EDUC6797
Multisensory Mathematics
Instruction for Students with Disabilities........................................3
EDUC6845
Understanding IQ Testing.........................................................1
Total...............6
Total........38

Note: It is preferable to complete EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders in the first or second semester of course work.

Learning Disabilities Teacher Consultant Certification
(Nondegree Program)

This is a nondegree program leading to certification as Learning Disabilities Teacher Consultant (LDTC). It is designed for certified teachers (who hold a Teacher of Students with Disabilities certificate or its equivalent master’s degree and have three years of teaching experience with special populations) who wish to develop skills for diagnosing learning difficulties and planning instructional programs for students with disabilities. Students who successfully complete this program will be eligible for certification as Learning Disabilities Teacher Consultant, the certification required by the state of New Jersey’s Department of Education for serving in the LDTC capacity on a Child Study Team.

Requirements

Students who have a Master of Arts in education degree or a degree in a related field are required to complete graduate course work specified under the basic core and specialization area. Students who have earned the Master of Arts in learning disabilities/Teacher of Students with Disabilities Certification at Fairleigh Dickinson University are required only to take EDUC6626 Neurophysiological Basis of Learning Problems, EDUC8623 Practicum in Diagnostic and Remedial Techniques I and EDUC8628 Practicum in Diagnostic and Remedial Techniques II and to meet the certification requirements for LDTC.

Dyslexia Specialist Program

The Dyslexia Specialist Program is tailored for general-education classroom teachers and teachers of special education who wish to develop expertise in Orton-Gillingham — a structured, phonic, rule-based multisensory approach to teaching reading, spelling and handwriting. This program provides teachers with a basic framework within which they can make decisions about adapting instructional sequences to the specific needs of individual students.

Dyslexia Specialist Certificate Requirements

Foundation (13 credits) Credits
Required (7 credits)
EDUC6610
History of Multisensory Instructional Methods for Students with Learning Disabilities/Dyslexia........1
EDUC6616
Language Acquisition and Language Disorders.................................3
EDUC7623
Diagnosis of Learning Disabilities.............................................3

The remaining 6 credits should be chosen from:
EDUC6626
Neurophysiological Basis of Learning Problems.................................3
EDUC6740
Introduction to Students with Disabilities and Autistic Spectrum Disorders........................................3
EDUC6746
Learning Environment and Effective Management of Teaching and Learning........................................3
Total...............13

Specialization (12 credits)
EDUC6601
Multisensory Reading I.................................................................3
EDUC6602
Multisensory Reading II.................................................................3
EDUC7603
Multisensory Reading III.................................................................3
EDUC7604
Multisensory Reading IV.................................................................3
Total...............12

A student must achieve a grade of B+ or better in the clinical component of each multisensory reading course to proceed to the next course.

Workshops (3 credits)

Three 1-credit workshops offered through the Center for Dyslexia Studies must be taken........................................3
Total........3

Electives in Reading (2 credits)

Electives.................................................................2
Total........2
Total........30

Orton-Gillingham Dyslexia Specialist Training Course

The Orton-Gillingham Dyslexia Specialist Training course consists of programs tailored for regular classroom teachers and teachers of special education who wish to develop expertise in the Orton-Gillingham approach to reading instruction. Accredited by the International Multisensory Structured Language Education Council (IMSELC) and the International Dyslexia Association (IDA), these programs provide teachers with a basic framework within which they can make decisions about adapting instructional sequences in reading to the specific needs of individual students.

The following certificates are offered:

Orton-Gillingham Teacher (Program Accredited at the IMSLEC Teaching Level)*
Requirements
EDUC6601
Multisensory Reading I.................................................................3
EDUC6602
Multisensory Reading II.................................................................3
EDUC7603
Multisensory Reading III.................................................................3
EDUC7604
Multisensory Reading IV.................................................................3
Total...............12

Orton-Gillingham Teacher Trainer
(Program Accredited at the IMSLEC Trainer of Teaching Level)
Requirements
All courses required for Dyslexia Specialist Certificate.................................30
EDUC8609
Multisensory Reading V.................................................................3
EDUC8610
Multisensory Reading VI.................................................................3
Total...............36

*A student must achieve grades of B+ or better in the clinical component of each course to proceed to the next course.
Orton-Gillingham Therapist
(Program Accredited at the IMSLEC Therapy Level)

Requirements
- All courses required for Dyslexia Specialist 30
- EDUC8612 Advanced Orton-Gillingham Practicum I 3
- EDUC8613 Advanced Orton-Gillingham Practicum II 3

Total 36

Orton-Gillingham Therapist Trainer
(Program Accredited at the IMSLEC Trainer of Therapy Level)

Requirements
- All courses required for Orton-Gillingham Teacher Trainer program 36
- EDUC8612 Advanced Orton-Gillingham Practicum I 3
- EDUC8613 Advanced Orton-Gillingham Practicum II 3

Total 42

Center for Clinical Teaching

FDU’s Center for Clinical Teaching, located on the Metropolitan Campus, provides an on-site setting where students in the Orton-Gillingham Teacher Program can learn and practice the skills of clinical teaching under faculty supervision. Students are trained to provide reading instruction that is individualized to accommodate learners’ needs, styles, and interests.

At the center, students are taught to monitor learners’ progress continuously and adjust instructional plans accordingly. They work to establish supportive relationships with learners to boost self-confidence and improve attitudes toward learning. An inventory of current diagnostic and instructional materials is maintained at the center.

Course Descriptions
See “Course Offerings,” pages 130–143.

Mathematical Foundations
(M.A.)

The M.A. in mathematical foundations is designed for teachers who wish to gain a deeper insight into the nature, fundamentals, and history of mathematics. The program is specifically designed for elementary, middle-school, and special-education teachers seeking to meet the New Jersey state requirements to teach mathematics at the middle-school level and to upgrade their mathematical skills.

The courses focus on upper-primary and middle-school mathematics and may not be an appropriate option for those with an undergraduate degree in mathematics.

Online Course Delivery: FDU offers New Jersey’s only 100 percent online graduate mathematics degree for educators. The online course format lets students pursue their studies at their convenience, offering convenient access for adult learners. There is no residency requirement for the online program.

The program’s competitive tuition and fee rate is comparable to that of a public university. No additional tests are required for admission.

Admission Requirements
1. A baccalaureate degree in any subject area from an accredited college or university.
2. All official transcripts of undergraduate degrees and graduate courses/degrees.
3. Two letters of recommendation.
4. Copy or proof of teaching certification.

Requirements for the Master of Arts Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH6507</td>
<td>World of Mathematics: Number</td>
<td>3</td>
</tr>
<tr>
<td>MATH6508</td>
<td>World of Mathematics: Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH6509</td>
<td>World of Mathematics: Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH6512</td>
<td>World of Mathematics: Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MATH6513</td>
<td>World of Mathematics: Mathematics in Science</td>
<td>3</td>
</tr>
<tr>
<td>MATH6516</td>
<td>World of Mathematics: Data Analysis and Probability</td>
<td>3</td>
</tr>
<tr>
<td>MATH6517</td>
<td>World of Mathematics: Applications in the Real World</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses (9 credits)

With the approval of the student’s academic adviser, elective courses may be selected from graduate offerings in science, education, psychology, computer science, or mathematics.

Course Descriptions

See “Course Offerings,” pages 130–143.
Teaching — Master of Arts in Teaching (M.A.T.)*

The Master of Arts in Teaching (M.A.T.) program is a graduate program in teacher preparation for the individual who has a baccalaureate degree in the liberal arts or sciences and a desire to enter the teaching profession. This program was designed to build upon a sound undergraduate academic foundation, as well as the student’s other educational and work-related experiences to provide an efficient path to state teacher licensure. The program is rigorous in its curriculum and expectations, yet flexible in its scheduling to ensure optimum benefit to the graduate student who typically must balance formal course work with other demands.

This program is offered under the auspices of the Peter Sammartino School of Education, University College: Arts • Sciences • Professional Studies. Metropolitan Campus, Teaneck, New Jersey. This program is offered at the Metropolitan Campus, Teaneck, New Jersey, and the Florham Campus, Madison, New Jersey. In addition, this program is offered at the following community colleges: Rowan College at Gloucester County (previously Gloucester County College), Sewell, New Jersey; and Cumberland County College, Vineland, New Jersey.

The Master of Arts in Teaching (M.A.T.) program offers New Jersey state-approved teaching certification programs in:

• Preschool to grade 3, see page 127;
• Elementary education (grades K–6), see page 127;
• Secondary education content area (grades K–12) in English, social studies, mathematics, art, biological sciences, chemistry, physics, earth science, physical science, see page 127.

All graduate credits earned in teacher certification programs can be applied to a Master of Arts in Teaching (M.A.T.) degree.

Students may choose between two M.A.T. program models (the Apprenticeship Teaching Model, this page, and the Practicum Model, see page 128), each of which is designed to enable a student to meet state eligibility requirements for teacher certification in elementary or K–12 content areas after completing the required graduate courses. Students may complete eligibility requirements for state certification with either program option without completing the M.A.T. degree, which requires a total of 36 credits. Upon completion of teacher certification eligibility requirements (see this page), students are eligible for full-time paid employment as elementary or secondary teachers and must successfully complete two full years of successful teaching to obtain permanent certification.

Persons out of college for some time, who seek a teaching career, as well as recent graduates, may apply. Students who cannot attend full time may study part time and complete the program not later than five years from the initial registration.

For Information
For further information, contact the Fairleigh Dickinson University Peter Sammartino School of Education at the location nearest you:

Metropolitan Campus
1000 River Road
Teaneck, New Jersey 07666
(201) 692-2862

Florham Campus
285 Madison Avenue
Madison, New Jersey 07940
(973) 445-8385

Community College Partnership Program
1000 River Road
Teaneck, New Jersey 07666
(201) 692-7310

New Jersey Teacher Certification

There are two avenues of earning state certification: the Certificate of Eligibility with Advanced Standing (CEAS) and the Certificate of Eligibility (CE). Both require two provisional years of teaching. Upon successful completion of the provisional years, the state issues the Standard (lifelong) certification.

In New Jersey, the State Department of Education grants certificates of eligibility for teacher certification. Please check the NJDOE website for minimum requirements to obtain a Certificate of Eligibility.

Certificate of Eligibility with Advanced Standing

The Certificate of Eligibility with Advanced Standing (CEAS) will be issued to students who successfully complete their programs, pass the edTPA and are recommended by Fairleigh Dickinson University for certification. The CEAS is valid for the lifetime of its holder. It authorizes the holder to seek and accept offers of employment in New Jersey public schools. New Jersey has reciprocity with other states to accept the CEAS as evidence of completion of an approved college education program. Students must undergo two induction years before receiving a standard certificate.

Provisional Certificate

The Provisional Certificate will be issued to students who receive and accept documented offers of employment from districts that comply with induction requirements.

Standard Certificate

The Standard Certificate will be issued to those students who serve for two years under the Provisional Certificate and who are recommended as “approved” by their school principal based on evaluations of the provisionally certified teacher’s classroom performance, conducted by the principal and other certified evaluators.

Apprenticeship Teaching Model

The M.A.T. Apprenticeship Teaching Model requires 22–23 credits for a Certificate of Eligibility with Advanced Standing. In fall 2018, additional credits will be required.

To obtain a Certificate of Eligibility with Advanced Standing in preschool–grade 3, elementary education or secondary education, the following requirements must be met:

• Successful completion of the required credits in the M.A.T. program (additional credits in fall 2018);
• A passing score on the state-required Praxis I Core Academic Skills Exam;
• A passing score on the state-required appropriate Praxis II exam; and
• Submission of an edTPA portfolio (starting fall 2018 a passing score on the edTPA is required).

New Jersey Teacher Certification becomes permanent after two full years of

*Fairleigh Dickinson University’s Peter Sammartino School of Education had an Aggregate Pass Rate of 99 percent on the HEOA Title II reporting for the 2013–2016 academic year. The corresponding statewide pass rate for the same period was 98 percent.
successful teaching with a support team. Students may go on to earn the M.A.T.
degree (total of 36 credits) by completing additional credits.

The Apprenticeship Model:
The required program of study for each certification area consists of the following
courses.

Preschool Through Grade 3
Required Courses for Certification*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6575</td>
<td>Apprenticeship Teaching</td>
<td>6</td>
</tr>
<tr>
<td>EDUC6818</td>
<td>Language Development and Literacy I</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6824</td>
<td>Teaching Laboratory and Field Experience I</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6825</td>
<td>Apprenticeship Teaching Seminar</td>
<td>2</td>
</tr>
<tr>
<td>EDUC6828</td>
<td>Teaching Laboratory and Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6835</td>
<td>Effective Teaching and Effective Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6893</td>
<td>Evaluation and Measurement in Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......36

Additional Required Courses for Completion of M.A.T.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6820</td>
<td>Problem-based Strategies for Elementary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......36

Elementary Education

Required Courses for Certification*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
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<td>EDUC6820</td>
<td>Problem-based Strategies for Elementary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6824</td>
<td>Teaching Laboratory and Field Experience I</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6825</td>
<td>Apprenticeship Teaching Seminar</td>
<td>2</td>
</tr>
<tr>
<td>EDUC6828</td>
<td>Teaching Laboratory and Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6835</td>
<td>Effective Teaching and Effective Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6893</td>
<td>Evaluation and Measurement in Education</td>
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</tr>
</tbody>
</table>

Total Credits Required for Graduation......36

Additional Required Courses for Certification*

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<tbody>
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<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6818</td>
<td>Language Development and Literacy I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......8

Secondary Education (Art, Biological Science, Chemistry, Earth Science, English, Mathematics, Physical Science, Physics and Social Studies)

Required Courses for Certification*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6818</td>
<td>Language Development and Literacy I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......36

Additional Required Courses for Completion of M.A.T.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......8

Education Electives/Courses in Discipline (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6575</td>
<td>Apprenticeship Teaching</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits Required for Graduation......36

*Starting in fall 2018, the minimum required credits for initial certification will increase with the addition of EDUC6835 Advanced Clinical Practice (2 credits) and EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders (3 credits). All candidates will be required to pass the edTPA to obtain certification.

**EDUC6584 Child and Adolescent Development may be substituted for EDUC6851 Child Development from Birth to Age Eight.
English as a Second Language

**Required Courses for Certification**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6565</td>
<td>Second Language Acquisition: Methods and Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574</td>
<td>Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6575</td>
<td>Apprenticeship Teaching</td>
<td>6</td>
</tr>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6631</td>
<td>Assessment in the Second-Language Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6654</td>
<td>Literacy Development for Second-language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6661</td>
<td>The Multicultural Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6824</td>
<td>Teaching Laboratory and Field Experience I</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6825</td>
<td>Apprenticeship Teaching Seminar</td>
<td>2</td>
</tr>
<tr>
<td>EDUC6828</td>
<td>Teaching Laboratory and Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>EDUC6835</td>
<td>Effective Teaching and Effective Schools</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Required Courses for Completion of M.A.T.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>2</td>
</tr>
</tbody>
</table>

Education Electives/Courses in Discipline (6 credits)

| Total Credits Required for Graduation | 36 |

**Practicum Model**

The M.A.T. Practicum Model is a six-to-eight-week accelerated and concentrated graduate student-teaching experience for those who have had previous teaching experience in a class but are not certified; it leads to a Certificate of Eligibility. Please see a School of Education adviser for more information about this model.

**Admission and Matriculation Requirements**

Admission to the M.A.T. program occurs after a formal application is submitted and program entrance requirements are fulfilled. All teaching candidates must maintain a cumulative grade point ratio (CGPR) of at least 3.00 in their course work to be certified.

1. Applicants must hold a bachelor's degree from an accredited college or university.
2. Applicants must have an undergraduate CGPR of at least 3.00 on a 4.00 scale.
3. Applicants must have subject-specific certification (secondary education) must have obtained a 30-credit concentration in the area of certification.
4. Applicants of Preschool–Grade 3 and Elementary Education certifications must have obtained 60 credits in liberal arts or sciences.
5. Applicants must have passed the Praxis I Core Academic Skills Exam in reading, writing and mathematics. Students may be exempt from taking this test if they meet the minimum required scores on the SAT, ACT or GRE. Please see an adviser to obtain those scores. An applicant may be admitted conditionally and allowed to take 9 credits until they pass the Core Academic Skills Exam.
6. Applicants are required to take the Praxis II in the content area of their certification before admission to the program. Students are admitted conditionally and allowed to take 9 credits until they pass the appropriate Praxis II test.
7. Applicants must have a personal interview with an adviser or program director prior to registration for any courses.
8. Applicants for English as a Second Language (E.S.L.) must take the Oral Proficiency Interview (OPI) and the Writing Proficiency Test (WPT) in English. Applicants for world languages must pass the OPI in the language for which they seek certification.

**Requirements for a Master of Arts in Teaching Degree First Certification Program in Teaching English as a Second Language**

Degree candidates must successfully complete 36 credits, of which 33 are taken in courses required by the New Jersey Administrative Code for teacher certification.

**Courses Required for Certification (33 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6565</td>
<td>Second Language Acquisition: Methods and Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574</td>
<td>Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6575</td>
<td>Apprenticeship Teaching</td>
<td>6</td>
</tr>
<tr>
<td>EDUC6583</td>
<td>Advanced Clinical Practice</td>
<td>2</td>
</tr>
<tr>
<td>EDUC6584</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6631</td>
<td>Assessment in the Second-Language Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6661</td>
<td>The Multicultural Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6824</td>
<td>Teaching Laboratory and Field Experience I</td>
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<td>Apprenticeship Teaching Seminar</td>
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<td>EDUC6828</td>
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</tr>
<tr>
<td>EDUC6835</td>
<td>Effective Teaching and Effective Schools</td>
<td>3</td>
</tr>
</tbody>
</table>

**Course Required for Graduation (3 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>3</td>
</tr>
</tbody>
</table>

*Starting in fall 2018, the minimum required credits for initial certification will increase with the addition of EDUC6583 Advanced Clinical Practice (2 credits) and EDUC65740 Introduction to Students with Disabilities and Autism Spectrum Disorders (3 credits). All candidates will be required to pass the edTPA to obtain certification.*
Requirements for Master of Arts in Teaching Degree Certification Program: Middle School Endorsement

Those individuals desiring to teach on the middle-school level (5, 6, 7 and 8) must qualify for elementary-school certification with subject-matter specialization. In order to do so, the following requirements must be met, according to N.J.A.C. 6A:9.2:

1. Hold an elementary school Certificate of Eligibility (CE), Certificate of Eligibility with Advanced Standing (CEAS) or standard certificate with an elementary-school endorsement;
2. Complete a course in adolescent development;
3. Pass the appropriate Middle School PRAXIS test in content-area specialization for middle school;
4. Complete 15 credits in the subject fields of mathematics, science, social studies and language arts/literacy; and
5. Secondary-education candidates may also secure a middle-school endorsement in a content area other than their initial certification by:
   i. Passing the appropriate PRAXIS II in the content area for middle school,
   ii. Taking a course in adolescent development and
   iii. Completing a minimum of 15 credits in the content area (can be included in undergraduate courses).

Requirements for a Master of Arts in Teaching Degree Certification Program in Teacher of Students with Disabilities

The program requires all courses for initial certification in an area above and the following 21 credits:

EDUC6740 Introduction to Students with Learning Disabilities and Autistic Spectrum Disorders*
EDUC6744 Foundations: Historical, Philosophical and Legal Issues Related to Disabilities
EDUC6745 Principles and Practices of Collaboration and Inclusion
EDUC6746 Learning Environment and Effective Management of Teaching and Learning
EDUC6747 Multisensory Reading Instruction for Students with Reading Disabilities
EDUC7623 Diagnosis of Learning Disabilities*
EDUC7624 Correction of Learning Disabilities*
EDUC7812 Final Project**

Course Descriptions
See “Course Offerings,” pages 130–143.

Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.)

The master of arts degree in teaching English as a second/foreign language (TESL/TEFL) is designed for (a) international students who want to teach English in their own countries; and (b) domestic* students who want a master's degree to teach English as a second language or as a foreign language, but do not seek New Jersey certification.

This degree program gives students the opportunity to explore:
• dimensions of language instruction and curriculum development,
• the relation of language to culture,
• assessment and alternative assessment in second-language instruction,
• techniques for addressing ethnic diversity
• second-language instruction through content areas and
• technology in language instruction.

For further information, contact the Peter Sammartino School of Education, Fairleigh Dickinson University, Metropolitan Campus, 1000 River Road, Teaneck, New Jersey, 07666-1914 at (201) 692-2079.

This program is offered under the auspices of the Peter Sammartino School of Education, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements

International Students
1. A bachelor's degree from an accredited college or university.
2. TOEFL score of 550 (paper-based), 213 (computer-based) or 79 (internet-based) or better.
3. Two letters of recommendation.

Domestic Students
1. A bachelor's degree from an accredited college or university.
2. Two letters of recommendation.

*U.S. citizens and legal residents.
Requirements for the Master of Arts Degree
This program requires 22 credits selected from foundation courses and 9 credits selected from approved electives. A 2-credit research project related to language instruction is required as the culminating exercise, for a total of 33 credits for the master of arts degree.

Required Courses (22 credits) Credits EDUC6565 Second Language Acquisition: Methods and Curriculum 3 EDUC6574 Applied Linguistics for Language Teachers 3 EDUC6584 Computers as a Teacher's Aid: Curriculum and Instruction 3 EDUC6650 Behavioral Science for Teachers: Language and Culture in the Classroom or EDUC6649 Introduction to United States Culture 3 EDUC6654 Literacy Development for Second-language Learners 3 EDUC6661 The Multicultural Classroom 3

Approved Electives (9 credits)

Final Requirement (2 credits) Credits EDUC7812 Final Project 2 Total 33

TESL/TEFL Specialist Certification Program
The Peter Sammartino School of Education offers an 18-credit TESL/TEFL (Teaching English as a Second/Foreign Language) Specialist Certificate for those who wish to earn a certificate without completing a master of arts degree. The program offers a strong 18-credit specialization in linguistics, language teaching, language proficiency and U.S. culture. Note: The TESL/TEFL Specialist Certificate is not a New Jersey state teaching certificate.

Required Courses (18 credits)

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.

Education
Peter Sammartino School of Education

EDUC6500 3 Credits Special Topics in Education
This course will focus on special topics especially designed to enhance graduate study in education. Topics may vary each time this course is offered.

EDUC6550 3 Credits Methodology in Bilingual/Bicultural Education
This course introduces students to current principles and methods of K–12 bilingual/bicultural education against the backdrop of its historical, legal and societal foundations. Through course readings, classroom activities, projects and field experiences, students build their competence to design bilingual/bicultural education methodology that is student-centered and culturally responsive. Particular attention is given to the development of academic language in bilingual/bicultural environments.

EDUC6551 3 Credits Language Acquisition in Bilingual/Bicultural Contexts
This course introduces students to current theories of language acquisition in bilingual/bicultural contexts. It explores current understandings of language development for emerging bilingual/bicultural individuals in K–12 educational settings.

EDUC6561 6 Credits Instructional Theory and Practice
Practicum consists of six to seven weeks school teaching experience preceded by orientation and classroom observations. The practicum experience prepares teaching candidates in state-prescribed studies under supervision of a master-teacher and professional support team members for provisional teaching certification. Spring, Summer

EDUC6562 3 Credits Standards-based Curriculum and Methodology: Secondary English
This course integrates research into effective teaching of English language and literature. Students learn different instructional strategies to enhance the teaching of English/language arts. State and national standards such as the New
Jersey Student Learning Standards will be addressed through curriculum development and assessment.

EDUC6563
3 Credits
Standards-based Curriculum and Methodology: World Languages
Standards-based instructional and assessment practices are introduced in this course utilizing the New Jersey Student Learning Standards and the Standards for Foreign Language Learning for the 21st Century (ACTFL Standards). The effective implementation of these standards will be demonstrated through the development of model lessons, unit plans and authentic assessment practices including use of rubrics and student portfolios.

EDUC6565
3 Credits
Second Language Acquisition: Methods and Curriculum
This course is designed to offer the student the opportunity to explore various methods, techniques and approaches to the teaching of a second language. Knowledge derived from the linguistic sciences about the nature of language and how it is learned will serve as the criteria of evaluation when examining various approaches. The information acquired from this endeavor will serve as a foundation for using a method that is eclectic in nature and considers both the cognitive and affective needs of second-language learners.

EDUC6566
3 Credits
Standards-based Curriculum and Methodology: Secondary Science
This course integrates research into effective teaching of science. Students learn different instructional strategies to enhance the teaching of science. State and national standards such as the New Jersey Student Learning Standards and the Next Generation Science Standards will be addressed through curriculum development and assessment.

EDUC6568
3 Credits
Standards-based Curriculum and Methodology: Secondary Social Studies
This course integrates research into effective teaching of social studies. Students learn different instructional strategies to enhance the teaching of social studies. State and national standards such as the New Jersey Student Learning Standards will be addressed through curriculum development and assessment.

EDUC6569
3 Credits
Standards-based Curriculum and Methodology: Visual Arts
This course integrates recent research into effective teaching practices in the visual arts. Students learn different instructional strategies to enhance the teaching of art for grade levels K–12. National and state standards such as the New Jersey Student Learning Standards will be addressed through curriculum development and assessment. Students will develop visual-art learning units with relevant teaching-support materials organized around specific art concepts and modes of inquiry; produce assessment instruments for the evaluation of art programs and student art products and engage in the review and analysis of art-education literature for research.

EDUC6570
3 Credits
Standards-based Curriculum and Methodology: Secondary Mathematics
This course integrates research into effective teaching of mathematics. Students learn different instructional strategies to enhance the teaching of mathematics. State and national standards such as the New Jersey Student Learning Standards will be addressed through curriculum development and assessment.

EDUC6571
2 Credits
Clinical Teaching Internship and Seminar I
First-semester teaching interns undergo clinical supervision by a college faculty member with the support of a school-based professional support team. Observations are followed by critique sessions. Consequently, first-semester teachers attend three seminars where problems arising in professional practice are addressed. Prerequisite: EDUC6561 Instructional Theory and Practice.

EDUC6572
2 Credits
Clinical Teaching Internship and Seminar II
Second-semester teaching interns undergo clinical supervision by a college faculty member with the support of a school-based professional support team. Observations are followed by critique sessions. Concurrently, the second-semester teachers attend three seminars where problems arising in professional practice are addressed. Prerequisite: EDUC6561 Instructional Theory and Practice.

EDUC6573
3 Credits
Comparative Phonology for Language Teachers
This course focuses on the phonology of American English in comparison with European, Asian and other languages. Students will examine implications and methodologies for teaching pronunciation. Initial reading/writing instruction in a second/foreign language is addressed through the introduction of the transfer from phoneme to grapheme.

EDUC6574
3 Credits
Applied Linguistics for Language Teachers
This course examines knowledge derived from linguistic sciences about the nature of language, how it is acquired and the practical application of linguistic knowledge to the teaching of a second language. The lexicon and grammar of American English in comparison with other languages and resultant implications for teaching both in a second/foreign language are the focus of this course.

EDUC6575
6 Credits
Apprenticeship Teaching
This full-semester student teaching experience is offered in the spring or fall following completion of field experiences and prescribed courses. This experience exposes the preservice teacher to the functions of teaching under the mentorship of a cooperating teacher and clinical supervision of a School of Education faculty member. The responsibilities of the student teacher increase during the apprenticeship until she/he is conducting the class with full teaching responsibilities. Note: Students must submit passing score on PRAXIS exam prior to registration.

EDUC6576
2 Credits
Second Language Acquisition: Internship I
First-year teachers undergo clinical supervision by a college faculty member with the support of a school-based professional team. Each observation is followed by a post-observation critique session. Concurrently, the first-year teachers attend three seminars each semester where problems arising in professional practice are addressed. Prerequisite: EDUC6561 Instructional Theory and Practice.

EDUC6577
1–2 Credits
Second Language Acquisition: Internship II
First-year teachers undergo clinical supervision by a college faculty member with the support of a school-based professional team. Each observation is followed by a post-observation critique session. Concurrently, the first-year teachers...
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attend three seminars each semester where problems arising in professional practice are addressed. Prerequisite: EDUC6561 Instructional Theory and Practice.

EDUC6578
4 Credits
Assistantship
Assistant teachers are placed in the classroom under the supervision of a mentor teacher for six to eight weeks. They also undergo clinical supervision by a University faculty member. Each observation is followed by a post-observation critique session. Concurrently, teaching assistants attend three seminars each semester where problems arising in professional practice are addressed. Prerequisite: EDUC6561 Instructional Theory and Practice.

EDUC6580
3 Credits
Distance Learning: Children's Literature
This online course emphasizes how to use children's literature in the classroom. Teachers learn how to integrate children's literature into the curriculum of all subjects and across all grade levels. Students learn how to use technology to enrich the study of children's literature.

EDUC6582
3 Credits
Distance Learning: Children's Literature
This online course emphasizes how to use children's literature in the classroom. Teachers learn how to integrate children's literature into the curriculum of all subjects and across all grade levels. Students learn how to use technology to enrich the study of children's literature.

EDUC6583
2 Credits
Advanced Clinical Practice
Guided observation and clinical experience of 125 hours in an educational setting. Program assessment and design. Supervised practical experiences in the classroom, increasing in intensity and duration. Orientation to the certification-required portfolio to be submitted at the completion of student teaching and required videotaping of classroom experiences. Intense preparation and analysis of acceptable lesson planning, instruction and engagement of students and assessment of student learning.

EDUC6584
3 Credits
Computers as a Teacher's Aid: Curriculum and Instruction
The computer is treated as a foundational tool integrated into a teacher's daily professional work and classroom activities. Topics covered include the authoring and use of standard software packages and the initiation and development of a professional electronic portfolio site for use both in current graduate studies and professional school-based activities.

EDUC6586
1 Credit
Neurodevelopmental/Medical Conditions Associated with Learning Disabilities
The course will cover medical conditions such as low-birth weight, premature birth, Attention Deficit Hyperactivity Disorder (ADHD), lead poisoning, etc., that affect learning in the school-age child. Prerequisite: EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders.

EDUC6587
1 Credit
Smartboards in the Classroom
This course will provide the basics on how to use the Smartboard in the classroom. It will cover how to access resources to increase interactivity in the classroom and utilize the tools available to enhance the curriculum.

EDUC6590
1 Credit
Teaching and Learning with iPad
The aim of this course is to help students understand and acquire the skills to use the iPad mobile device in an educational setting. An emphasis on hands-on activities and the sharing of relevant strategies will be the focus of this course. Students will be guided through the use of a range of applications considered essential for educators. Strategies focus on creativity, writing, image-processing, mind-mapping, virtual whiteboards, productivity and organization.

EDUC6591
1 Credit
Web 2.0 Tools and Educational Applications
The course will explore current Web 2.0 community, presentation, formative assessment and multimedia tools and their applications in the classroom.

EDUC6592
1 Credit
Cloud Computing and Social Media
This course will cover what cloud computing is and explore free applications such as Google tools. It will explore how social media can be used in the classroom.

EDUC6600
3 Credits
Technology in the Science Classroom
Use of computers and technology as applied to the operation of an elementary science classroom. Includes interfacing for data sensing with probes, selected software and hardware accessories.

EDUC6601
3 Credits
Multisensory Reading I
An introduction to teaching beginning reading, spelling and handwriting (up to fourth-grade level), focusing on the Orton-Gillingham approach to teaching basic language skills. Teachers plan, present and evaluate instructional sequences for students with dyslexia. Consists of lectures followed by supervised practicum in which teachers provide individual Orton-Gillingham-based instruction to students with dyslexia. Also includes group seminars and individual conferences between teacher and practicum supervisor.

Fall, Spring, Summer

EDUC6602
3 Credits
Multisensory Reading II
Continuation of training in the Orton-Gillingham techniques taught in EDUC6601 Multisensory Reading I. Includes testing procedures and data collection to evaluate student growth and effectiveness of instructional approach. Consists of lectures, supervised practicum, group seminars and individual conferences as described for EDUC6601 Multisensory Reading I. Prerequisite: B+ or better grade in clinical component of EDUC6601 Multisensory Reading I.

Fall, Spring, Summer

EDUC6605
3 Credits
Foundations in Reading I
Recent research and findings in language development and literacy and their application in elementary education are the focus of this course. Literacy skills in reading and language arts across grade levels also are included.

EDUC6606
3 Credits
Foundations in Reading II
Research and findings in language development and literacy and applications in social studies and science in the elementary and secondary schools are the focus of this course. Literacy across the curriculum also is emphasized.

EDUC6607
3 Credits
Diagnosis of Reading Problems
This course includes a systematic study of the selection, administration and interpretation of formal and informal techniques and instruments used to assess phonological and phonemic awareness, word recognition, vocabulary development and reading comprehension. Students practice writing reports of reading evaluations and state-required Individual Student Improvement Plans (ISIPs). Prerequisites: EDUC6605 Foundations in Reading I and EDUC6606 Foundations in Reading II.
EDUC6608
3 Credits
**Correction of Reading Problems**
This course includes survey research of reading instructional approaches, programs and materials that have been proven to work with the struggling reader. Effective classroom practices as well as clinical settings, including reading recovery, will be reviewed. Emphasis is placed on interpretation of test data as bases for planning Individual Student Improvement Plans (ISIPs) including establishment of goals and objectives and selection of appropriate strategies and materials.

EDUC6609
3 Credits
**Supervised Practicum in Reading**
This course places teachers with a mentor/University clinical teaching supervisor in a classroom/school or University clinical reading program for 45 hours of supervised clinical experience in which the knowledge and skills from previous course work will be reinforced and extended. The reading program may be part of an after-school or summer-school program operated by a university or school. A University clinical teaching supervisor will observe the participants and provide support and mentoring. Prerequisites: EDUC6607 Diagnosis of Reading Problems and EDUC6666 Supervised Practicum in Correction of Reading Problems.

EDUC6610
1 Credit
**History of Multisensory Instructional Methods for Students with Learning Disabilities/Dyslexia**
A historical perspective of multisensory teaching techniques in the areas of reading, spelling and writing. Various curricula are compared and contrasted.

EDUC6611
1 Credit
**Advanced Language Structure**
Sessions review topics in advanced alphabetic orthography (including roots and suffixes) and methodology for teaching upper-level language skills (including error analysis). Presentation of case histories, exercises in formulating advanced lesson plans and a survey of curriculum materials are included.

EDUC6612
1 Credit
**Reading Comprehension**
Presents a direct, systematic, multisensory approach for teaching reading comprehension to students. Training in concepts and skills necessary for students to gather and organize information from factual, fictional and procedural types of reading materials is provided.

EDUC6613
1 Credit
**Written Expression**
Techniques are explored for teaching written expression in a structured format to the student with learning disabilities/dyslexia. Includes an introduction to the writing process, as well as the production of expository writing pieces and proofreading/editing skills.

EDUC6614
1 Credit
**Multisensory Mathematics Skills**
Presents multisensory techniques for teaching basic mathematics concepts and computation to students with learning disabilities/dyscalculia. Topics include the acquisition of basic mathematics facts, word problems, fractions, decimals and percentages.

EDUC6615
1 Credit
**The Computer as a Teaching Aid**
Introduces classroom and special-education teachers to the use of computers. Includes a review of commercially available software programs, criteria for evaluation and selection and methods for integrating computer software and traditional instruction. (Dyslexia Specialist program course)

EDUC6616
3 Credits
**Language Acquisition and Language Disorders**
An introduction to language development. The relationship of oral language to written language. The identification of language disability and language-based approaches to the remediation of literacy deficits.

EDUC6617
1 Credit
**Study Skills**
Techniques are reviewed for teaching students with learning disabilities/dyslexia how to study effectively for content mastery. Topics include acquisition of critical-thinking skills, vocabulary development, organization of time and materials, test-taking, memory and note-taking strategies.

EDUC6618
1 Credit
**Students with Learning Disabilities: Social and Emotional Needs**
Students will survey contemporary research regarding the social and emotional issues in relation to students with learning disabilities, including dyslexia. Techniques, variables and research, as well as theories supporting the development and maintenance of positive self-regard and other proactive aspects of working with students with learning disabilities are addressed.

EDUC6619
1 Credit
**Multisensory Approach to Teaching in the Content Areas**
Tailored to meet the needs of subject-area middle school and secondary teachers, this course emphasizes vocabulary development, comprehension and study skills as they relate to reading in English, social studies, history and science.

EDUC6620
3 Credits
**Introductory Course in Dyslexia**
Critical issues regarding individuals with dyslexia are explored in this course, including its definition, current research, legal rights, general classroom strategies and accommodations. Includes the study of diagnostic approaches for identifying dyslexia and related disorders. An overview and history of Orton-Gillingham as the preferred method for remediating students with dyslexia also are featured.

EDUC6624
1–6 Credits
**Orton-Gillingham Topics**
Study of one particular topic regarding dyslexia or one particular treatment of individuals with dyslexia using the Orton-Gillingham approach. Course may be repeated, but with different topics.

EDUC6626
3 Credits
**Neurophysiological Basis of Learning Problems**
Introduction to the anatomy and physiology of the human nervous system. Emphasis on sensorimotor and higher-order functions and dysfunctions basic to understanding school learning problems and the effects of exceptionalities on the atypical learner.

EDUC6627
3 Credits
**Orientation to School Testing**
Surveys tests used to evaluate students’ performances. Includes study of test-construction criteria, methods for assessing students’ progress and evaluation of teaching effectiveness.

EDUC6631
3 Credits
**Assessment in the Second-language Classroom**
This course provides the theoretical as well as the practical bases for the study, analysis and creation of appropriate strategies to evaluate language acquisition. Practical procedures and theoretical issues relevant to the measurement and evaluation of language proficiency will allow teachers of English as a Second Language (E.S.L.), English as a Foreign Language (E.F.L.) and World Languages to understand and apply the techniques required for the assessment of language learning in the classroom.
EDUC6655  
4 Credits  
Clinical Practice in Language Instruction  
Field participation in a variety of language-teaching settings. Opportunity for guided observation, demonstration and micro-teaching with clinical analysis.

EDUC6636  
1 Credit  
Phonology, Reading and Spelling  
Participants will learn the sound system of English, how children's processing of the sound system governs early spelling and reading development and how phonological skills can be enhanced through direct, informed teaching.

EDUC6659  
1 Credit  
Incorporating Children's Literature into Orton-Gillingham Program  
This course will focus on how to maximize the use of literature when using an Orton-Gillingham program in grades K–8. Emphasis will be placed on 1) how to find literature that correlates with a child's level of decoding and comprehension, 2) how to look at readability levels through Orton lenses and 3) how to infuse fluency practice into appropriate literature.

EDUC6641  
1 Credit  
Orton-Gillingham for Resource Center Teaching Workshop  
Teachers will explore techniques for using the Orton-Gillingham approach in reading, spelling and handwriting instruction for individuals or small groups within the resource center or the inclusive classroom. Coordination with regular classroom curriculum also will be covered.

EDUC6643  
1 Credit  
Fluency: A Bridge to Comprehension  
This course will focus on two essential components of effective reading instruction. The theoretical basis, related strategies and critical connections between fluency and comprehension will be addressed.

EDUC6648  
1–6 Credits  
Assistive Technology for Students with Dyslexia  
Overview of strategies to provide assistive technology for students with dyslexia. Presentation of major apps, electronic tools and software for students' use in compensating for reading, writing, spelling and organizational difficulties. Hands-on experience in implementing programs and selecting appropriate strategies for individual students. The course may be repeated but with different topics.

EDUC6649  
3 Credits  
Introduction to United States Culture  
Analysis of major patterns of American culture in contrast with other cultures based on observations, readings and field research. This course is intended for international students in the Master of Arts in teaching English as a second/foreign language (TESL/TEFL) program only.

EDUC6650  
3 Credits  
Behavioral Science for Teachers: Language and Culture in the Classroom  
This course examines human culture as a general phenomenon and the human capacity for culture as the major mechanism that renders the individual capable of internalizing various types of educational messages. Students will explore the relationship between language and culture with implications for materials selection and curriculum development.

EDUC6651  
3 Credits  
Effective Reading Instruction  
An introduction to current theory, strategies and practices designed to meet the reading and language arts needs of students of varying abilities and cultural and linguistic backgrounds. Students will acquire a knowledge of techniques and materials used in the development of reading and language-arts skills.

EDUC6654  
3 Credits  
Literacy Development for Second-language Learners  
This course explores the process of acquisition of literacy skills in a second language. Reading theories and second-language acquisition theories, as well as transferability of literacy skills from L1 to L2, will be reviewed. The impact of these theories on instructional practices will be emphasized.

EDUC6658  
3 Credits  
Science, Technology and Society  
The impact of science as a way of knowing and a component of western culture and technological advancement on society. Historical and philosophical perspectives on the role of science in culture. New directions for scientific literacy, reasoning and problem-solving skills.

EDUC6660  
1 Credit  
Diagnosing Mathematics Disabilities and Strategies for Remediation  
Overview of diagnostic techniques used to diagnose mathematics disabilities in the areas of calculation, word problems and automatically of basic problems. Introduction of strategies to address weaknesses in identified areas.

EDUC6661  
3 Credits  
The Multicultural Classroom  
This course focuses on understanding how biases at the institutional, individual and societal levels impact the educational context and academic achievement of all students, and covers different teaching strategies on topics related to cultural differences with respect to race, ethnic class, gender, sexual orientation, religion and English-language learners in schools. Current topics such as the achievement gap and bullying are addressed.

EDUC6662  
2 Credits  
Behavioral Science for Teachers: The Learning Process  
Examination of the physiological bases and psychological theories of learning, including cultural, cognitive and behaviorist theories as applied to instructional and behavioral classroom management.

EDUC6666  
3 Credits  
Supervised Practicum in Correction of Reading Problems  
This 45-hour course places candidates with a collaborating teacher and a University clinical teaching supervisor in a clinical reading setting for a minimum of 30 hours of supervised clinical practicum experiences, in which the knowledge and skills from previous course work will be reinforced and extended. A University clinical supervisor will observe the candidates, interview the collaborating teacher and provide support and mentoring. Prerequisite: EDUC6607 Diagnosis of Reading Problems.

EDUC6667  
3 Credits  
A Behavioral Science: An Introduction to Multicultural Studies  
This course examines the historical and contemporary goals, assumptions and strategies of multicultural education. Through the use of critical pedagogy, students in the course will apply a multicultural analysis to historical events from the inception of the United States through the time of reconstruction to the Industrial Revolution through the Great Depression and World War II to contemporary America. Particular attention will be paid to state and federal legislation. The course is intended to prepare teachers to effectively apply theories of equity to their classroom and teaching practice by familiarizing them with the dynamics of oppression at different points in American history as well as in the different levels of contemporary American society.

EDUC6668  
1 Credit  
Understanding Asperger Syndrome  
Asperger Syndrome is a pervasive developmental disorder which is characterized by significant dif-
ficiency in social interactions as well as restricted and often unusual patterns of interest. This course will provide an examination of the incidence of Asperger Syndrome (AS) among school-age children, the characteristics of students with AS, the challenges they present to educators and ways with which to assist them in the school setting.

**EDUC6669**
3 Credits
**Advanced Field Placement**
Clinical supervision by a college faculty member with the support of a school-based professional support team. Observations are followed by critique sessions. For those students enrolled in M.A. in education for certified teachers or teachers only. This course runs for two semesters.

**EDUC6671**
3 Credits
**Teachers as Researchers and Educational Leaders**
This course focuses on developing and enhancing the skills of the in-service teacher as a professional, instructional expert and educational leader. Topics include human relations, organizational behavior, effective communication, leadership development, action research, school improvement planning, curriculum development and use of technology to enhance instruction and facilitate school effectiveness.

**EDUC6672**
3 Credits
**Curriculum Development for Diverse Learners**
Students learn the principles of curriculum development and evaluation for diverse populations. Students choose specific grade levels K–12 and learn how to select and develop curricular materials that address diverse learners’ needs. Students learn how to incorporate content standards such as the New Jersey Core Curriculum Content Standards and national standards into curricular materials. This course is aligned with the New Jersey Professional Standards for Teachers, and students learn how instructional staff should be trained to comply with them.

**EDUC6673**
3 Credits
**Integrating Literacy and Technology Across the Curriculum**
Techniques are examined which promote the integration of literacy and technology across the curriculum. Teachers explore the definition of literacy based on state standards and develop examples of effective technology-integration literacy lessons. Emphasis is placed on using the internet to explore and share specific instructional strategies resulting in a curriculum project presented as part of the teacher’s web folio site.

**EDUC6675**
3 Credits
**Gender Issues in Education**
This course examines heterosexism and homophobia in K–12 schools. It considers the historical, legal, social and political trends that have affected schools’ ability to address these issues; examines connections among heterosexism, homophobia and sexism; and explores the specific concerns of lesbian, gay and bisexual students, parents and educators in the classroom and school society.

**EDUC6676**
3 Credits
**Language, Culture and the Community**
This course will focus on the strong connection between language and culture, including non-verbal communication, humor, formal and informal language. Cultural differences related to family structures, celebrations, food, religions and educational systems will be discussed. The contributions of various cultural groups with an emphasis on the most commonly taught languages in grades K–12 will be incorporated in the course. Further emphasis will be placed on the ways culture can be introduced in the world-language class and how members of the community representing these cultures can enrich the classroom experience.

**EDUC6688**
3 Credits
**Integrating Technology in the Second-language Classroom**
The incorporation of technology tools in the second-language classroom will be explored and modeled in this course. Activities will include the use of multimedia equipment and materials for developing listening, speaking and viewing skills. The importance of providing comprehensible input will be part of these demonstrations. The use of the internet to access world-languages resources and research other countries and cultures and the use of email for communication with other countries also will be emphasized. Software and various multimedia applications designed to enhance world-language instruction will be reviewed and explored.

**EDUC6694**
3 Credits
**Introduction to Autism Spectrum Disorders**
This course will present a comprehensive overview of the characteristics of children and adults on the autism spectrum, including autism disorders, Asperger Syndrome (disorder) and Pervasive Developmental Disorder, Not Otherwise Specified (PDD-NOS). Through study and project-based learning, students will compare/contrast the accepted methodologies used to support and instruct children and adults with autism.

**EDUC6701**
3 Credits
**Leadership in Learning Community and School**
Students will study the theoretical and conceptual basis of organizational leadership, with emphasis placed on contemporary theories and applications for successful leaders. Students will examine the roles of school leaders and what they must think about and be able to do to be effective under conditions of change. Emphasis will be placed on self-reflection and analysis of personal strengths and weaknesses as a future school leader.

**EDUC6702**
3 Credits
**Curriculum and Instruction: Theory and Practice**
Students will study and analyze the historic and philosophic roots of contemporary curriculum theory and development. New Jersey Curriculum Content Standards and alignment will be addressed in this course, and the implication on New Jersey Administrative Code requirements on program, assessment and graduation requirements.

**EDUC6703**
3 Credits
**Supervision of Instruction: Personnel and Evaluation**
Students will study and analyze the various models of supervision and evaluation with a special emphasis on the development of the skills necessary to promote effective instruction in the classroom. Formative and summative staff evaluation strategies, as well as effective coaching and mentoring techniques necessary for success in a diverse school community, will be investigated. The implication of the New Jersey Administrative Code requirements on professional behavior, student growth objectives, student growth percentiles, PARCC testing and school-wide improvement of program and state assessment of pupil performance will be reviewed.

**EDUC6704**
3 Credits
**Change: Curriculum Development and Program Improvement**
Students will examine current research on educational change and collaborative strategies for increasing communication and engaging stakeholders in the change process. A primary focus of the course is to provide students with the skills needed in assessing the school culture; developing a vision and plan for school improvement. The course will focus on several change models and strategies, strategic planning and the communication of the change process within the learning community.
EDUC6706  3 Credits  
**Advanced Leadership Seminar**  
The seminar is designed as a problem-based course that focuses on current educational problems that incorporate the behaviors informed by the Interstate School Leaders Licensure Consortium (ISLLC) Standards and New Jersey Professional Standards for School Leaders (NJPSLL). Students will develop skills related to building leadership capacity in themselves and others by working in professional work groups focused on finding solutions to educational problems that have no defined solution set. Prerequisites: EDUC6701 Leadership in Learning Community and School, EDUC6702 Curriculum and Instruction: Theory and Practice, EDUC6703 Supervision of Instruction: Personnel and Evaluation and EDUC6704 Change: Curriculum Development and Program Improvement.

EDUC6715  1 Credit  
**Updating LDTC Diagnostic Skills**  
This course will focus on an introduction of recently updated standardized tests frequently used by learning disability teacher consultants (LDTCs). Emphasis will be placed on administration, interpretation and inclusion of results into report writing. Prerequisites: EDUC6762 Diagnosis of Learning Disabilities and EDUC6764 Correction of Learning Disabilities.

EDUC6716  3 Credits  
**School Finance, Facilities and Scheduling**  
This course will focus on the principal as an instructional leader and manager of the educational enterprise. The course curriculum is structured to assist future school leaders in acquiring the knowledge and skills necessary to ensure that the management of the school educational program, facility and its resources produce a safe, efficient and effective learning environment for the success of all students. The concepts learned during this course will be applied during the concurrent full-year, field-based internship.

EDUC6717  3 Credits  
**School Law**  
This course is structured to assist future school leaders in acquiring the knowledge and skills necessary to ensure that the school educational program, facility and its resources produce a safe, efficient and effective learning environment for the success of all students. The course focuses on law related to education, legislation and court decisions that may impact the rights and responsibilities of administrators, teachers, students and parents. Specific attention is given to New Jersey statutes, administrative code and administrative decisions affecting the school community.

EDUC6718  3 Credits  
**Curriculum/Program Evaluation and Student Assessment**  
This course focuses on basic measurement concepts, the role of measurement in education, construction of teacher-made tests and other classroom assessments, interpretation of standardized tests and fundamental descriptive statistics for evaluating student performance, school-improvement efforts and various designs for process and outcome evaluation of curricula. In addition, the course will provide a comprehensive understanding of the purposes and the logic of various testing programs, including classroom testing and state and national testing programs. Data analysis of New Jersey Statewide Tests that measure student performance will be used to assist in developing skills in data-based decision making that lead to the construction of school improvement plans and determining school goals for professional development and instructional emphasis.

EDUC6720  5–6 Credits  
**Educational Leadership Field-based Internship I**  
This first phase of a school-based internship is part of a 9-credit course sequence focusing on school leadership and management activities with an experienced practitioner in school leadership. The participants in the internship program enroll in three consecutive semesters (summer, fall and spring) during the second year of the M.A. in educational leadership program to complete 120 hours of field experience with an assigned mentor and adviser.

EDUC6721  3 Credits  
**Educational Leadership Field-based Internship II**  
This second course in a sequence of three courses dedicated to the field-based internship is part of a 9-credit course sequence focusing on school leadership and management activities with an experienced practitioner in school leadership. The participants in the internship program enroll in three consecutive semesters (summer, fall and spring) during the second year of the M.A. in educational leadership program. Students will have an opportunity to apply their learning in an authentic school setting while working with a current school administrator who also serves as a mentor for the educational leadership program. Prerequisite: EDUC6720 Educational Leadership Field-based Internship I.

EDUC6722  3 Credits  
**Educational Leadership Field-based Internship III**  
This third course in a sequence of three courses dedicated to the field-based internship is part of a 9-credit course sequence focusing on school leadership and management activities with an experienced practitioner in school leadership. The participants in the internship program enroll in three consecutive semesters (summer, fall and spring) during the second year of the M.A. in educational leadership program. Students will have an opportunity to apply their learning in an authentic school setting while working with a current school administrator who also serves as a mentor for the educational leadership program. Prerequisites: EDUC6720 Educational Leadership Field-based Internship I and EDUC6721 Educational Leadership Field-based Internship II.

EDUC6723  3 Credits  
**Final Project: School-based Research**  
This course emphasizes the supervisor’s and principal’s roles in conducting school-based research as a means of school improvement and professional development. Research-based strategies will be used to develop an instructional plan focused on school improvement and student achievement.

EDUC6732  2 Credits  
**Project Read: Phonics**  
Systematic phonics using multisensory strategies. The sequence of concepts and skills from awareness, sound/symbol correspondence, syllabication and, ultimately, context. Designed for primary-level students but basic for any age person at a beginning level.

EDUC6733  3 Credits  
**The Oral Language Reading Connection**  
An examination of the nature of oral-language problems and their impact on upper-level reading skills. Differentiating instructional strategies to align with oral-language profiles of students with reading disabilities.

EDUC6735  3 Credits  
**Orton-Gillingham Resources for Administrators**  
Understanding dyslexia and the characteristics of students who benefit from the Orton-Gillingham approach. Content and strategies of Orton-Gillingham lessons. Administrative procedures including scheduling, program and teacher evaluation and creating professional development. Serves as a resource for teachers and parents.

EDUC6736  0–2 Credits  
**Literacy Topics**  
Study of literacy topic(s). The course can be taken again but specific topics may not be repeated.
EDUC6737
1 Credit
Phonemic Awareness

EDUC6740
3 Credits
Introduction to Students with Disabilities and Autistic Spectrum Disorders
Overview of normal growth and development as a basis to identify developmental delays and learning differences. Characteristics of different disabilities and their effects on how children learn. Review of federal, state and local regulations and their effects on local policies, procedures and placement. Transition planning, resources and assistive technology to enhance the performance of students with disabilities and autistic spectrum disorders.

EDUC6741
1 Credit
Response to Intervention (RTI): Strategies for Struggling Readers
Presentation of screenings/assessments, strategies and program options to enhance and monitor reading achievement within the multi-tier RTI model.

EDUC6742
2 Credits
Innovations in Effective Teaching in Special Education
An analysis of the literature on studies of teacher effectiveness and their implications for teaching students with learning disabilities. Methods for reading and interpreting research reports in educational journals are covered.

EDUC6743
3 Credits
Introduction to Students with Disabilities in School and Community
Introduction to the student with disabilities. Overview of normal growth and development as a basis to identify developmental delays and learning differences. Characteristics of different disabilities and their effects on how children learn. Review of federal, state and local regulations and their effect on local policies, procedures and placement. Transition planning, resources and assistive technology to enhance the performance of students with disabilities.

EDUC6744
3 Credits
Foundations: Historical, Philosophical and Legal Issues Related to Disabilities
Foundations of special-education practice. Learning environments that are culturally responsive. Ethical responsibility of special educators to advocate for the highest quality of life potential for students with exceptional needs. Special educators’ role in the healing process.

EDUC6745
3 Credits
Principles and Practices of Collaboration and Inclusion
This course addresses the prerequisite knowledge and skill set necessary to create collaborative teaching/learning environments essential for inclusion. Students will examine effective teaching practices for whole-class instruction and the adaptations and modification necessary to meet the needs of students with high- and low-incidence disabilities. Students will learn strategies that prompt acquisition and application of core curriculum competencies.

EDUC6746
3 Credits
Learning Environment and Effective Management of Teaching and Learning

EDUC6747
3 Credits
Multisensory Reading Instruction for Students with Reading Disabilities
Causes, characteristics and intervention for students with reading disabilities with special emphasis on students with dyslexia. Strategies and related materials for assessing and instructing students in phonological awareness, word attack, word recognition, fluency, spelling, vocabulary and comprehension.

EDUC6749
1 Credit
Syntax: Its Role in Writing and Comprehension
Syntax, the arrangement of words within a sentence, plays an important role in a student’s reading comprehension and written expression. Syntax and various ways to teach it will be covered in this course.

EDUC6750
3 Credits
Teaching in an Inclusive Classroom
The focus of this course will include identifying differing ways of learning of individuals with exceptional learning needs including those from culturally diverse backgrounds. Strategies for addressing these differences, methods for ensuring individual academic success in various settings and the use of research-supported methods for academic and nonacademic instruction of individuals with learning disabilities will be addressed. Topics will include collaborating with families, professional and community agencies in culturally responsive ways; assistive technology; and language issues impacting student learning.

EDUC6752
1 Credit
K–4 Literature for Struggling Readers
The focus of this course will include finding appropriate and exciting literature for the struggling reader, using picture books effectively for listening comprehension and vocabulary instruction and analyzing traits of literature beneficial to children with dyslexia.

EDUC6753
2 Credits
Written Expression Practicum
Supervised practice teaching written expression and syntax to individual students and small groups. Includes experience with managing peer revising, sharing written pieces and conducting brainstorming sessions for the struggling writer.

EDUC6772
1 Credit
Technology to Support Reading and Writing Instruction
This course explores assistive technology tools that enhance reading and writing instruction, for compensation or remediation. It highlights understanding of devices such as iPads, Chromebooks, laptops, Google Apps for Education, iOS apps and effective web tools.

EDUC6777
3 Credits
English Language Education: Grammar for Teachers of English and E.S.L.
This course examines grammatical theories underlying the teaching of English to native and non-native English speakers. All language skills — listening, speaking, reading and writing — are addressed.

EDUC6778
3 Credits
Methods ELL Content Areas
This course focuses on educational approaches that synthesize language-learning objectives with content-area objectives. Informed by the findings of current research, the course surveys the variety of ways K–12 programs tie together language and content instruction. Course assignments are designed to provide students with practical training in the design and implementation of lesson plans that integrate both language and content objectives. Special attention is given to the SIOP (Sheltered Instruction Observation Protocol) and CALLA (Cognitive
Academic Language Learning Approach) models. This course is appropriate for all students in education programs, regardless of their area of intended certification.

EDUC6780
1 Credit
Using Technology to Enhance Learning for Students with Dyslexia
Overview and application of new technologies and discussion of their applications for students with dyslexia. Discussion of technological tools to permit nonprint alternatives for student learning. Demonstration of tools to help students make web research more efficient. Approaches to evaluating website content.

EDUC6784
1 Credit
Developing Metacognitive Skills
Presents a standard format of instruction to help students develop reading-comprehension strategies. Demonstrates listening comprehension, transitional metacognition and guided metacognition lessons. Provides predesigned lessons that extend throughout the curriculum.

EDUC6792
3 Credits
Assistive Technology for the Inclusive Classroom
This course introduces teacher candidates to technologies that enhance the learning of all students. Assistive technology will be explored to increase access to the general-education classroom. Strategies and technologies to address diverse learning needs will be introduced.

EDUC6793
3 Credits
Education of Students with Moderate to Severe Disabilities
This course examines major historical trends, legal mandates and current philosophical issues influencing the education of students with moderate/severe disabilities. Students will develop knowledge regarding the learning, communication, behavioral, social and physical characteristics of these students and the implications of these characteristics on program planning. Evidence-based practices for modifying curriculum, aligning instruction to the general education curriculum, designing and supporting instruction in general education programs and facilitating social skill development will be emphasized. Students will develop the knowledge and skills related to the use of augmentative and assistive technology, community-based instruction, positive-behavior supports, transition planning and home-school collaboration.

EDUC6795
3 Credits
Teaching Strategies for the Secondary/Post-secondary Students in Learning Disabilities
Training to instruct secondary and post-secondary students in the use of learning strategies. Instruction on integrating technology-based accommodations into content-based teaching. Includes a hands-on practicum with college-bound students with learning disabilities.

EDUC6797
3 Credits
Multisensory Mathematics Instruction for Students with Disabilities
Causes, characteristics and intervention for students with mathematics disabilities. Strategies and instructional materials for assessing and instructing students in calculations, word problems and fluency.

EDUC6804
3 Credits
Integrating Science/Mathematics/Technology in the Classroom
Utilizing a project-based approach, preservice and in-service teachers will become familiar with an integrated approach for the delivery of science and mathematics using technology tools. In-depth understanding of the appropriate use of technology (i.e., MBL[s], sensors and probes, robotics, LEGO/LOGO) in and out of a classroom setting to deliver science and mathematics content aligned with New Jersey Core Curriculum Content Standards (NJCCCS).

EDUC6806
3 Credits
Language Development Through Mathematics/Science
Student-centered mathematics and science instruction can be harnessed to enhance first- and second-language acquisition on the part of language minority students. Underlying theory of language acquisition will be reviewed along with a presentation of methodologies for teaching language through mathematics and science. Students will be called upon to apply theory and strategies learned to the production of instructional resources and experiences that encompass course teachings.

EDUC6810
3 Credits
Schools, Communities and Substance Abuse
One of eight courses required for substance abuse coordinator certification, this course addresses curriculum issues, models of implementation for programs to prevent substance abuse, school policies and methods of implementing effective programs as well as historical context from which current mandates have arisen.

EDUC6818
3 Credits
Language Development and Literacy I
Recent research and findings in language development and literacy and its application in elementary education will be the focus of this course. Literacy skills in reading and language arts across grade levels for students with varying abilities and cultural and linguistic backgrounds will be included.

EDUC6819
3 Credits
Language Development and Literacy II
Recent research and findings in language development and literacy and applications in social studies and science in the elementary school will be the focus of this course. Literacy across the curriculum will be emphasized.

EDUC6820
3 Credits
Problem-based Strategies for Elementary Mathematics
Recent findings in critical thinking, quantitative reasoning and problem solving as they apply to all elementary subjects and grades is the focus of course content. Special emphasis is given to mathematical problem solving using manipulative materials.

EDUC6824
1 Credit
Teaching Laboratory and Field Experience I
Guided observation and clinical analysis in an education setting. Program assessment and design. Supervised practical experiences in the classroom, increasing in intensity and duration.

EDUC6825
2 Credits
Apprenticeship Teaching Seminar
The seminar will provide an opportunity to review current theories and practices in education as they directly relate to the students’ teaching experiences. This course is taken as a corequisite with EDUC6575 Apprenticeship Teaching. Corequisite: EDUC6575 Apprenticeship Teaching.

EDUC6827
1 Credit
Field Project Seminar
Seminar concentrating on observations and experiences in the field. Emphasis on adapting theory to classroom practice with various age groups.

EDUC6828
1 Credit
Teaching Laboratory and Field Experience II
Guided observation and clinical analysis in an educational setting. Program assessment and
design. Supervised practical experiences in the classroom, increasing in intensity and duration. Prerequisite: EDUC6824 Teaching Laboratory and Field Experience I.

EDUC6829
1 Credit
Teaching Laboratory and Field Experience III
Guided observation and clinical analysis in educational settings. Program assessment and design. Supervised practical experiences in the classroom, increasing in intensity and duration. Prerequisite: EDUC6828 Teaching Laboratory and Field Experience II.

EDUC6835
3 Credits
Effective Teaching and Effective Schools
Students will acquire and demonstrate skills in effective teaching for students with varying abilities and cultural and linguistic backgrounds. Essential skills as identified by the New Jersey Department of Education for beginning teachers will be emphasized. Presentations of research findings, demonstrations of essential teaching skills by faculty, microteaching, peer coaching and audiovisual instructional materials will be used to impart skills. Students also will acquire a thorough knowledge of effective school management and operations that relate to successful classroom instruction.

EDUC6845
1 Credit
Understanding IQ Testing
This course for teachers, reading specialists and learning consultants will provide a comprehensive review of the Wechsler Intelligence Scales as a basis for understanding diagnosis, remediation and strategy instruction for students with learning disabilities, particularly students with dyslexia.

EDUC6849
1–3 Credits
Advanced Special Project
Students are supervised while working with children in the field, using materials and methods studied in the academic section of the courses in diagnosis and correction of learning disabilities and remediation in basic school subjects. Each credit hour represents 30 hours of fieldwork.

EDUC6851
3 Credits
Child Development from Birth to Age 8
This course is designed to foster the understanding of the development and learning of children from birth through age eight. It examines the current information concerning the development of the child through the various stages of childhood. Educators will gain knowledge based on the growth, development and learning of children from birth through eight years old. The class will explore the crucial role that communities, families and teachers play in the lives of young children. Students will engage in observations of children at various ages to gain a deeper knowledge of the integration of theory of child development into practice.

EDUC6852
4 Credits
P–3 Curriculum and Assessment
This course examines the current literature on developmentally appropriate curriculum, classroom management and assessment for the Pre-K through third-grade classrooms.

EDUC6853
3 Credits
Family and Community in Education
This course examines the current research on parent, school and community influences on children's lives. It addresses effective family-engagement activities in classrooms, schools and communities. Educators will gain more knowledge and skills to work collaboratively to work with families. Contemporary issues of bullying, diverse family lifestyles, social media and children with differing abilities will be explored.

EDUC6854
3 Credits
Child and Adolescent Development
This course is designed to foster the understanding of the development and learning of children from birth through adolescence. It examines the current information concerning the development of the child through the various stages of childhood and adolescence. The class will explore the crucial role that communities, families and teachers play in the lives of children. Students will engage in observations of children at various ages to gain a deeper knowledge of the integration of theory of child development into practice.

EDUC6862
1 Credit
Project Read: Reading Comprehension (Report Form)
This course presents the Report Form section of the reading comprehension strand of the Project Read program. It teaches students how to collect, organize and analyze information from expository text (report form).

EDUC6864
1 Credit
The Montessori Approach to Learning
Overview of Montessori methods for teaching oral and written language, as well as mathematics in preschool through grade 12.

EDUC6870
3 Credits
Standards-based Strategy: Elementary Science
In-depth program on teaching science to elementary school children through a hands-on, process-oriented and problem-solving approach. Lesson design, management of the students and materials, safety and cross-curricular teaching are integral to the instruction activities in the life and physical sciences.

EDUC6871
3 Credits
Seminar: Practice of Elementary Science Education
Analysis of the design and construction of instructional units; application of research in cooperative learning, learning styles, effective teaching and peer coaching in clinical practice of elementary science.

EDUC6880
1 Credit
Teaching Vocabulary to Students with Learning Disabilities
Current research on vocabulary-development strategies for enhancing reading comprehension and word choice in writing for students with learning disabilities. Application for instruction in inclusion and special-education classrooms.

EDUC6893
3 Credits
Evaluation and Measurement in Education
This course emphasizes the use of multiple methods to assess student learning in K–12 classrooms; development and assessment of portfolios and performance-based tasks; and objective and standardized tests. Analysis of assessment information and self-/peer assessments to enhance teaching and address individual student-learning needs is integral to the course. Strategies for evaluation and grading and the use of rubrics are addressed. Emphasis is placed on standards-based instruction and assessment using the New Jersey Core Curriculum Content Standards and statewide assessments as reference points.

EDUC6910
3 Credits
Race, Immigration and Education in Contemporary America (1960s to the Present)
This course focuses on contemporary America (1960s to the present) through the analysis of key historical events in America such as the civil rights movement. Specifically, the course examines post-1965 immigration patterns and other current issues, events and themes related to contemporary America such as globalization and transnationalism. The reshaping of America's racial geography is explored. One of the primary objectives of this class is for students to understand that historical cohorts of different ethnic
groups have parallel experiences of Americanization. From this realization can grow a greater understanding of and ability to cross American racial/ethnic lines and focus on the needs and experiences of the newest Americans, particularly in the educational context.

EDUC6912 3 Credits Sociology of Multicultural Identity Development
This course is designed to equip educators with appropriate skills and knowledge for the effective teaching of culturally and socioeconomically different students. The course focuses on multicultural cognitive and psychosocial development as it bears on teaching and learning within different social and cultural populations (gender, race, ethnicity, sexual orientation) and contexts (homes, schools). It examines research related to the identity development of racial/ethnic minority students and to the societal and school experiences of these students. Special attention is given to ethnic and racial identity development of African-American, Latino/a, and Asian-American students, identity development of Caucasian-American students will also be discussed.

EDUC6914 3 Credits Developing Multicultural Curricula
This course is designed to help teachers better understand the school’s role in the multicultural education of students and acquire the insights, understandings and skills needed to design and implement curricular and instructional strategies that reflect ethnic diversity. Topics include philosophy and principles of multicultural education; racial and cultural influences on education; the impact of teaching and learning on instruction and assessment; alternative assessment theories; and the relationship of instruction to classroom management. This course is designed to help educators identify content and materials, devise methods for incorporating multicultural content into regular K–12 social studies, language arts and humanities curricula. Prerequisite: EDUC6661 The Multicultural Classroom.

EDUC6918 3 Credits Foundations of Modern America: Asian-Americans
This course answers the questions: Who are Asian-Americans? What has been their role in American history? By applying critical-thinking techniques to competing views of historical and current events, the course explores issues of ethnic identity development, religion, gender and sexuality, language, Americanization and the sociopolitical climate as they affect Asian-Americans. The class will focus on second-generation Asian-Americans whose families arrived in the United States in 1965 as immigrants and refugees. The Asian-American experience and the factors affecting it — including the civil rights and women’s movements, immigration patterns and policy and the current War on Terrorism — will be used to examine the role of cultural heritage in how one views oneself, one’s ethnic group(s) and the dominant culture.

EDUC6920 3 Credits Foundations of Modern America: Latino/a
This course presents a sociohistorical and cultural analysis of the diversity within Latino/a groups, particularly as represented in educational settings. In this context, the class examines global, political, economic and social changes in the 20th century, including rapid population growth, increasing urbanization and globalization. Applying critical thinking skills and historical analysis, the class explores how all these factors affect the goals, achievements and legacies of Latinos/as in the United States today. This course will prepare educators to respond to the diversity within Latino/a groups by developing an awareness of the relationships among different Latino/a groups — including the different demographics, linguistic factors and sociological perspectives among Latinos/as.

EDUC6921 1 Credit Clinical Teaching Internship and Seminar III
Second-year teaching candidates undergo clinical supervision by a college supervisor who is a member of a school-based professional support team. Observations are followed by critique sessions; problems arising in professional practice are addressed. Prerequisites: EDUC6571 Clinical Teaching Internship and Seminar I, EDUC6572 Clinical Teaching Internship and Seminar II and EDUC6921 Clinical Teaching Internship and Seminar III.

EDUC6922 1 Credit Clinical Teaching Internship and Seminar IV
Second-year teaching candidates undergo clinical supervision by a college supervisor who is a member of a school-based professional support team. Focuses on skills for teaching upper-level language skills (fourth-grade level and above) involved in teaching reading, spelling and handwriting, using the Orton-Gillingham approach. Topics include roots, prefixes and suffixes. Consists of lecture followed by supervised practicum in which teachers are assigned upper-level students with dyslexia. Group seminars and individual conferences between teacher and supervisor are also included. Prerequisite: 

EDUC6923 3 Credits Multisensory Reading III
Continuation of training in the Orton-Gillingham techniques taught in EDUC7603 Multisensory Reading III, with continued study of upper-level language skills. Prerequisite: Continuation of training in the Orton-Gillingham techniques taught in EDUC7603 Multisensory Reading III.

EDUC6924 1 Credit Diagnosis of Dyslexia
Advanced study of diagnosis of individuals with dyslexia. Integrates current research, theory and assessment approaches. Prerequisite: New Jersey Learning Disabilities Teacher Consultant (LDT) Certification or equivalent.

EDUC6925 3 Credits Diagnosis of Learning Disabilities
Research on characteristics, uses, advantages and limitations of formal and informal assessment techniques and instruments used to assess educational strengths and weaknesses. Students will learn how to gather background information, select assessment measures, interpret results and practice writing learning evaluations and Individual Education Plans (IEPs) based on evaluation results. Prerequisites: EDUC6740 Introduction to Students with Disabilities or EDUC6743 Introduction to Students with Disabilities in School and Community and Autistic Spectrum Disorders and EDUC6745 Principles and Practices of Collaboration and Inclusion or
EDUC7646 Learning Environment and Effective Management of Teaching and Learning.

EDUC7624 3 Credits **Correction of Learning Disabilities**
Selection, adaptation and use of research-based instructional strategies and materials to plan and modify the curriculum for students with learning disabilities in remedial and replacement settings. Interpretation of formal and informal test data as the basis for planning Individualized Education Programs (IEPs), including writing goals and objectives and selecting appropriate strategies and materials to facilitate maintenance and generalization of learning across environments. Prerequisites: EDUC6740 Introduction to Students with Disabilities or EDUC6743 Introduction to Students with Disabilities in School and Community and Autistic Spectrum Disorders and EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC7646 Learning Environment and Effective Management of Teaching and Learning.

EDUC7674 2–3 Credits **Master's Seminar: Research in Specialization**
This course serves as a capstone experience that extends and reinforces the teachers’ knowledge, skills and competencies related to professional and educational practice through research and completion of a culminating project in their relevant area of specialization. The course reviews research methodologies and various research models. The teacher will prepare a research study on a topic/problem of his/her choice (subject to approval by an adviser) under the direction of a mentor. The teacher will be required to submit a written report and action plan in an approved format, subject to approval of the mentor in accordance with School of Education policy. (Only for M.A. in education for certified teachers students.)

EDUC7675 2 Credits **Master's Seminar in Early Childhood Education**
This course reviews research methodologies in early childhood education. The student will choose a research topic and write a written report in an approved format under the guidance of a mentor. It will be a culminating research project in the area of early childhood education.

EDUC7718 2 Credits **Final Project: Second Language Acquisition**
Application of linguistic and pedagogical knowledge in the development of one or two units of language study rooted in appropriate New Jersey Core Curriculum Content Standards as well as appropriate language standards (either New Jersey English Language Proficiency Standards or Standards for Foreign Language Learning in the 21st Century) for age/grade level cited and for the target language addressed.

EDUC7721 3 Credits **Philosophy of Education**
An introduction to educational philosophy, emphasizing modern theories and their origins, development and application to present problems. *Fall, Spring, Summer*

EDUC7725 3 Credits **Principles of Curriculum Construction**
Emphasis on recent curriculum materials and evaluation of planning process. Procedures in supervision, design and implementation of innovative curriculum. Implications for public education of recent curriculum trends.

EDUC7765 3 Credits **Human Relations and Conflict Resolution for Educators**
This course provides a theoretical and practical framework for decision making, social problem solving, conflict resolution and mediation in the classroom and school environment for both students and adults. The theoretical knowledge base emphasizes the sociological and psychological aspects of human behavior. Varied learning activities will develop skills and techniques that address preventative measures to minimize conflict and mediate conflict situations when they occur. The course emphasizes conflict-resolution strategies as an intervention, and learning experiences that promote development of character and social responsibility, productive social interactions and collaboration.

EDUC7779 1–3 Credits **Computer-based Programming for Gifted Children**
This course is designed to introduce regular classroom teachers, teachers of the gifted and talented and supervisors to the use of computers in instructing gifted children. Review of existing software and techniques, planning and integration with traditional instruction.

EDUC7782 3 Credits **Technology in the Reading/Writing Process**
This course examines how technology can support the reading and writing process in the classroom. Basic research in the field is covered. Word processing and software programs are examined. The impact of technology on the reading/writing process will be examined and discussed.

EDUC7783 3 Credits **Telecommunications and Distance Learning**
This course examines two-way interactive television to present courses to remote locations via fiber-optic networks. Emphasis is on using this technology to deliver courses and learning techniques that increase interactivity. Distance-learning programs such as Blackboard will be introduced. Students will be asked to create a lesson using Blackboard.

EDUC7784 3 Credits **Multimedia Production**
Techniques for the application of visual, audio and animation file formats to curriculum activities are explored. Teachers use a professional multimedia-authoring tool to design and author an interactive curriculum module for use in the classroom which is designed for placement and curriculum delivery within the teacher’s web folio site. Prerequisite: EDUC7783 Internet for Educators.

EDUC7785 3 Credits **Internet for Educators**
The Internet is treated as a dynamic curriculum delivery, authoring and collaborative medium. Teachers use professional web-authoring tools to design and author the structure of a comprehensive shell for their web-based folio site. Design principles are emphasized which support regular use of the site in classroom and school activities. Prerequisite/Corequisite: EDUC6384 Computers as a Teacher’s Aid: Curriculum and Instruction.

EDUC7786 3 Credits **Technology in the Social Science/Humanities Classroom**
This course focuses on integrating computers and technology into the social sciences/humanities classroom. New products will be evaluated and model school districts using technology in social studies and English classrooms will be reviewed, along with strategies to use technology in the classroom. Students will create many different projects they can use in a social studies or English classroom.

EDUC7790 3 Credits **Seminar in Instructional Technology**
Research and techniques in the field of instructional technology are explored in a seminar setting. Topics investigated include state and district technology plans and the implications of national policy initiatives. A research project is presented as part of the teacher’s web folio site. Prerequisite: EDUC7784 Multimedia Production.
EDUC7795
3 Credits
Advanced Internet for Educators
This is an advanced internet course which will build upon knowledge of how to design a web page using more advanced tools. It will continue to explore how the Internet can be a valuable classroom resource for educators. Prerequisite: EDUC7785 Internet for Educators.
Fall, Spring, Summer

EDUC7796
3 Credits
Projects Based on the Web
A major multimedia module featuring interactive content and incorporating techniques and work from the instructional technology program is authored as a capstone project for the teacher's web folio site. Prerequisite: EDUC7784 Multimedia Production.

EDUC7797
3 Credits
Technology in Visual/Performing Arts
Explores the exciting role computers can take in bringing the visual and music arts alive in the classroom. Students develop their own visual and music projects which model classroom activities that might be used to support New Jersey Core Curriculum Content Standards. No prerequisite "arts literacy" or "art background" are required. Prerequisite: EDUC6584 Computers as a Teacher's Aid: Curriculum and Instruction.

EDUC7798
3 Credits
Special Topics in Instructional Technology
Current issues related to the growing movement toward technologies which support schoolwide networking are emphasized. Topics focus on current technology trends and developing strategic plans for change and technology implementation strategies for schools and districts. A module is authored as part of the teacher's web folio site. Prerequisite: EDUC7785 Internet for Educators.

EDUC7810
1–3 Credits
Advanced Special Projects: Field Experiences
Guided observation and clinical analysis in an educational setting. Program assessment and design. May be taken with EDUC7811 Research in Curriculum Development, in preparation for EDUC7812 Final Project.

EDUC7811
1 Credit
Research in Curriculum Development
Survey of literature in curriculum followed by development of a research project in a specific discipline.

EDUC7812
2–3 Credits
Final Project
The fundamentals of educational research and the link between theory and practice are explored. Students develop a research proposal that is specific to their needs and interests as practitioners. This course explores the fundamentals of educational research, its value and the links between educational research and practice. Students will conduct a survey of the literature on a selected topic and use higher-order thinking skills to develop a research question or series of questions and research proposal. Signature of adviser required.

EDUC7813
3 Credits
Applied Field Project
Applied field project as culmination of program of study. Project to be related to elementary-, secondary- or college-level instruction.

EDUC8609
3 Credits
Multisensory Reading V
Techniques for teacher training and supervision of the Orton-Gillingham approach to instruction are offered. Students plan, present and evaluate training sessions. Includes supervision in providing instruction and feedback to individuals in training. Prerequisite: EDUC7604 Multisensory Reading IV.

EDUC8610
3 Credits
Multisensory Reading VI
Techniques for teacher training and supervision of the Orton-Gillingham approach to instruction are offered. Students plan, present and evaluate training sessions for teachers who are enrolled in EDUC7603 Multisensory Reading III and EDUC7604 Multisensory Reading IV. Includes supervision in providing instruction and feedback to individuals in training. Prerequisite: EDUC8609 Multisensory Reading V.

EDUC8612
3 Credits
Advanced Orton-Gillingham Practicum I
Focuses on provision of comprehensive instruction, including decoding, encoding, written expression, reading comprehension and study skills using multisensory strategies. Consists primarily of a supervised practicum working with students with dyslexia. Prerequisite: EDUC7604 Multisensory Reading IV.

EDUC8613
3 Credits
Advanced Orton-Gillingham Practicum II
A continuation of the training provided in EDUC8612 Advanced Orton-Gillingham Practicum I and includes training in syntax and written-expression instruction. Consists of lectures and a supervised practicum working with students with dyslexia.

EDUC8614
3 Credits
Orton-Gillingham Internship
Applied field experience in private practice, schools or clinical settings to meet hours required for the Orton-Gillingham Therapist Certificate. Instruction using the Orton-Gillingham approach is tailored to the individual/group and includes decoding, encoding, fluency, handwriting, vocabulary, comprehension, narrative and expository writing. The course includes 10 of the observations required for certification at the therapy level. Prerequisite: EDUC8612 Advanced Orton-Gillingham Practicum I and EDUC8613 Advanced Orton-Gillingham Practicum II.

EDUC8623
3 Credits
Practicum in Diagnostic and Remedial Techniques I
Students administer tests, analyze results and interview parents and teachers of children with learning problems. Includes a 45-hour supervised practicum and problem-solving seminar. Prerequisites: A B+ or better grade in EDUC7623 Diagnosis of Learning Disabilities and in EDUC7624 Correction of Learning Disabilities.
Fall

EDUC8628
3 Credits
Practicum in Diagnostic and Remedial Techniques II
Emphasizes the development and implementation of detailed educational plans to remediate learning problems of children. Includes a 45-hour supervised practicum and problem-solving seminar. Prerequisite: A B+ or better grade in EDUC8623 Practicum in Diagnostic and Remedial Techniques I.
Fall or Spring

French

FREN5101
3 Credits
French I
Conversational introduction to French. In addition, basic reading selections, including cultural material, will lead to oral and written reports.

FREN5102
3 Credits
French II
Continuation of intensive conversation in French. French literary texts as a basis for advanced oral and written reports. French culture presented from a linguistic perspective.
German

GERM5101
3 Credits
German I
Conversational introduction to German. In addition, basic reading selections, including cultural material, will lead to oral and written reports.

GERM5102
3 Credits
German II
Continuation of intensive conversation in German. German literary texts as a basis for advanced oral and written reports. German culture presented from a linguistic perspective.

Mathematics

MATH6507
3 Credits
World of Mathematics: Number
Investigations of numbers utilizing a physical modeling, problem-solving approach to show its development and use.

MATH6508
3 Credits
World of Mathematics: Algebra
An investigation of algebra through a hands-on, process-oriented, problem-solving approach.

MATH6509
3 Credits
World of Mathematics: Geometry
An investigation of the world through geometry and its application via a hands-on, process-oriented, problem-solving approach.

MATH6512
3 Credits
World of Mathematics: Seminar
The practice of mathematics and the analysis of the impact of mathematics on the world in its use and understanding. Numeracy, with its many facets, will draw students to aspects of how mathematics is understood by people.

MATH6513
3 Credits
World of Mathematics: Mathematics in Science
An investigation of the role of mathematics in the fields of biology, chemistry, earth science and physics with an emphasis on the meaning and interpretation of data and statistics and its relevance to the real world.

MATH6514
3 Credits
World of Mathematics: Discrete Mathematics
An investigation into the deeper understanding of topics from discrete mathematics such as counting methods, graph theory, trees, net-

Education for Certified Teachers (M.A.)
See Education, page 115.

Educational Leadership (M.A.)
See Education, page 121.
Electrical Engineering

Electrical Engineering (M.S.E.E.)

Electrical engineering is one of the most dynamic areas of modern technology. The graduate program in electrical engineering provides students with broad scientific knowledge, current information about technological advancement, exposure to modern mathematical techniques and the ability to formulate and meet objectives that are necessary in the successful practice of electrical engineering. Numerical analysis and computer-aided design methods are used in all courses where relevant. The courses are updated frequently to keep pace with new technological developments and to meet the needs of the industry.

**Online M.S.E.E. Option:** This program is also available through the internet with the same admission requirements, academic standards and evaluation processes as the traditional classroom program. Lecture notes are posted weekly on the program's website (www.fdu.edu/onlinemsee). Homework assignments also are provided regularly to determine student performance. Assignments may be submitted by mail, email or fax. Ongoing communications and guidance via the electronic forum, email, fax and telephone are provided by the faculty. The M.S.E.E. program can be completed entirely online or in combination with traditional classroom instruction.

The program, on-campus or online, is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

**Admission Requirements**

1. A Bachelor of Science degree in electrical engineering from an accredited university. Students with a Bachelor of Science degree in science, engineering (other than electrical) or technology may be admitted if they complete undergraduate prerequisites determined by the school.

2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in electrical engineering with a minimum grade point ratio (GPR) of 3.00 and no grade below C or is a Fairleigh Dickinson University electrical engineering graduate with an undergraduate GPR of 3.00 or is a non-Fairleigh Dickinson University electrical engineering graduate with an undergraduate GPR of 3.50. This GRE waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. (The GRE requirement also is waived for applicants who have completed a master's degree from a regionally accredited college or university in the United States.)

3. Three letters of recommendation. Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

**Requirements for the Master of Science in Electrical Engineering Degree**

Students must earn a total of 30 credits with a grade point ratio of at least 2.75. All courses are 3 credits.

**Core Requirements (15 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EENG6633</td>
<td>Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>EENG6747</td>
<td>Digital Communications</td>
<td>3</td>
</tr>
<tr>
<td>EENG7701</td>
<td>Logic System Design</td>
<td>3</td>
</tr>
<tr>
<td>EENG7709</td>
<td>Embedded Systems</td>
<td>3</td>
</tr>
<tr>
<td>EENG7725</td>
<td>Automatic Control Systems I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization Elective Courses (9 credits)**

Select three courses from the areas of specialization shown. Any course may be selected, although it is recommended that they are in the same area.

**Digital Signal Processing and Communications Specialization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EENG6629</td>
<td>Random Processes in Communications</td>
<td>3</td>
</tr>
<tr>
<td>EENG7738</td>
<td>Wireless Communication</td>
<td>3</td>
</tr>
<tr>
<td>EENG7748</td>
<td>Advanced Digital Communications</td>
<td>3</td>
</tr>
</tbody>
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**Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EENG7753</td>
<td>Applications of Digital Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>EENG7773</td>
<td>Digital Image Processing</td>
<td>3</td>
</tr>
<tr>
<td>EENG7852</td>
<td>Digital Signal Processing with C and DSP Processors</td>
<td>3</td>
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</tbody>
</table>

**Computers Specialization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EENG6610</td>
<td>Computer-aided Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>EENG7702</td>
<td>Microprocessor Design</td>
<td>3</td>
</tr>
<tr>
<td>EENG7707</td>
<td>Neural Networks and Fuzzy Logic Systems</td>
<td>3</td>
</tr>
<tr>
<td>EENG7737</td>
<td>Computer Communication Networks</td>
<td>3</td>
</tr>
<tr>
<td>EENG7773</td>
<td>Digital Image Processing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Devices and Systems Specialization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EENG6601</td>
<td>Linear Systems</td>
<td>3</td>
</tr>
<tr>
<td>EENG6610</td>
<td>Computer-aided Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>EENG7706</td>
<td>Robotics Engineering</td>
<td>3</td>
</tr>
<tr>
<td>EENG7715</td>
<td>Integrated Circuit Devices</td>
<td>3</td>
</tr>
<tr>
<td>EENG7755</td>
<td>VLSI Systems (Digital)</td>
<td>3</td>
</tr>
<tr>
<td>EENG7775</td>
<td>Optics</td>
<td>3</td>
</tr>
<tr>
<td>EENG7830</td>
<td>Special Topics in Electrical Engineering (Power Systems)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional Elective Courses (6 credits)**

Electives may include any graduate electrical engineering courses. Students have the option of registering for a 3-credit internship after completing 18 graduate credits. A 6-credit thesis option is also available in consultation with electrical engineering faculty. Courses in other technical programs such as computer science may be taken with adviser permission.

**Telecommunications and Networking Certificate**

Admissions requirements and requirements for the certificate are provided in the Computer Science section (page 98).
### Electrical Engineering

**Course Offerings**

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

**Electrical Engineering**

Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

### EENG6601

**State equations, time domain solutions, matrix functions, Laplace solutions, discrete time state equations and solutions, z-transforms, z domain solutions, controllability and observability of linear systems.**

### EENG6602

**Time varying systems, sampled systems, bilateral Laplace transforms, real and complex convolution integrals, distributed parameter systems. Prerequisite: EENG6601 Linear Systems I.**

### EENG6606

**Transmission lines, waveguides, antennas, wave propagation in anisotropic media.**

### EENG6610

**Study of simulation packages for engineering problem solving. Transient and steady-state analysis of passive circuits. Signal processing, circuit and system modeling. Digital circuit and system simulation.**

### EENG6629

**Probability and random variables. Random processes and spectral analysis. Modulation, introduction to noise and linear systems with random input.**

### EENG6633

**Discrete-time signal and systems, z-transform, discrete-time Fourier transform, discrete Fourier transform, fast Fourier transform, circular convolution, block convolution, basic and advanced filter structures, design of finite impulse response and infinite impulse response filters, applications, introduction to DSP processors.**

### EENG6747

**Source coding, channel capacity and coding, error-detection and error-correction codes, communication signals and systems, optimum receiver, digital-signal detection and performance, digital modulation.**

### EENG7701

**Review of combinational and sequential logic. Memory and programmable logic. Register transfer and computer operations. Control logic design. Computer instructions. CPU design. Input/Output and communication. Memory-management hardware. Prerequisite: undergraduate course in logic design.**

### EENG7702

**This course covers 80x86 instruction set architecture: registers, memory organization, data types and instructions: assembly language programming, relation between high-level language and assembly language and the impact on performance and code size; application optimization and tuning, evolution of 80x86 microarchitecture from 80386 through Pentium 4: CISC, RISC, VLIW, execution pipeline and pipelining; issues affecting performance: data and control dependencies, cache, simple and complex instructions, static and dynamic scheduling, parallel instruction execution. Prerequisite: EENG7701 Logic System Design.**

### EENG7705

**Use of computers for design, analysis, control and decision. Engineering applications in circuits electronics, signal processing and numerical analysis. Use of systems interfaces such as assembly-language subroutines, memory video displays, ports and interrupts.**

### EENG7704

**Fundamentals of data acquisition and instrument control. Applied instrumentation automation, Analysis and modeling tools.**

### EENG7706

**Introduction, robot kinematics, system modeling, control and motion, vision, manufacturing system applications.**

### EENG7707

**Structure of neural network and fuzzy logic systems with applications in signal processing, pattern recognition, process control and optimization. Topics include learning algorithms, perceptron learning rule, adaptive linear neurons, back propagation training, pattern association, competitive neural nets, fuzzy sets and algebra, fuzzy digital devices and control systems, design of fuzzy systems, neuro fuzzy systems and MATLAB simulation.**

### EENG7708

**A thorough study of the application software architecture of the Itanium processor. Data types, organization of data and code in memory, register set, instruction set architecture and parallel instruction dispersal mechanism. Prediction, speculation, parallel compares, software pipelining and fused floating-point multiply divide.**

### EENG7709

**Introduces system hardware and firmware design for embedded applications. Hardware Design Language (HDL)-based combinational and sequential logic design. Software modeling and embedded C-program development. Real-time operating system (RTOS) and task management. Top-down design methodology using a processor-based development platform. Prerequisite: EENG7701 Logic System Design or equivalent background.**

### EENG7711, EENG7712

**BJT and FET circuits, transistor amplifier frequency response, wide-banding, tuned amplifiers, oscillators, feedback amplifiers, operational amplifiers, linear wave-shaping circuits, logic circuits, multivibrators, sweep circuits, synchronization.**

### EENG7715

**Solid-state physics (review); pn junctions in integrated circuits. Bipolar junction transistors. Ebers-Moll model. Field-effect transistors.**

### Active Circuits Analysis and Design I, II

**BJT and FET circuits, transistor amplifier frequency response, wide-banding, tuned amplifiers, oscillators, feedback amplifiers, operational amplifiers, linear wave-shaping circuits, logic circuits, multivibrators, sweep circuits, synchronization.**

### Integrated Circuit Devices

**Solid-state physics (review); pn junctions in integrated circuits. Bipolar junction transistors. Ebers-Moll model. Field-effect transistors.**

**Integrated-circuit fabrication.**
EENG7725
3 Credits
**Automatic Control Systems I**
Analysis and design of both continuous and digital control systems. Stability criteria, frequency response, state variable method. Digital filtering.

EENG7732
3 Credits
**Statistical Communication Theory**

EENG7734
3 Credits
**Engineering Applications in Medicine**
A seminar-type course, surveying current advances in the field of biomedical engineering, including artificial organs, automated instrumentation, noninvasive diagnostic techniques such as ultrasonics and computerized axial tomography.

EENG7735
3 Credits
**Biomedical Instrumentation Design**
Signal processing, transducers, microcomputers in medical instrumentation, cardiac monitors, ultrasonic scanning, medical-imaging systems, electrical safety.

EENG7736
3 Credits
**Microwave and Optical Communications**
Microwave and optical sources. Modulation techniques for microwave and optical frequencies. Transmission media, atmosphere, waveguides, antennas and optical fibers. Design of microwave and optical transmitters and receivers. Prerequisite: EENG6606 Electromagnetic Radiation and Transmission.

EENG7737
3 Credits
**Computer Communication Networks**
Data transmission and encoding, multiplexing, circuit and packet switching, error detection and correction, switching systems, bridging, IP, routing concepts and forwarding, quality of service, traffic shaping and policing, foundations of cryptography and network security.

EENG7738
3 Credits
**Wireless Communication**

EENG7748
3 Credits
**Advanced Digital Communications**

EENG7749
3 Credits
**Telecommunications Engineering**

EENG7753
3 Credits
**Applications of Digital Signal Processing**
Applications of multirate signal processing, applications of adaptive signal processing, speech processing and coding, random signals, linear prediction and optimum filters, power spectrum estimation, DSP processor architecture, implementation of FIR, IIR and adaptive filters on a DSP processor. Prerequisite: EENG6635 Digital Signal Processing or permission of the instructor.

EENG7755
3 Credits
**VLSI Systems**
Introduction to microelectronics. MOS Logic families. Memories. Logic design with ROMs. Computer-aided design, simulation and analysis.

EENG7757
3 Credits
**Coding Theory**

EENG7758
3 Credits
**Introduction to Digital Transmission**

EENG7773
3 Credits
**Digital Image Processing**
A treatment of the techniques used in image enhancement and restoration. Topics will include image modeling and geometry, image transforms, FFT, histogram modification, spatial and frequency domain filtering, image encoding. Some discussion of pattern recognition will be included.

EENG7774
3 Credits
**Optical Signal Processing**
Optical techniques applied to signal processing. Particular emphasis given to Fourier processing and Fourier plane filtering. Acousto-optical signals. Prerequisite: course in linear systems or permission of the instructor.

EENG7775
3 Credits
**Lasers**

EENG7776
3 Credits
**Infrared Optics**
The spectra of atoms, molecules, liquids and solids. Cavity modes, interaction of radiation and atoms, black body radiation. Inversion, laser threshold and conditions for laser operation. Steady state and pulsed lasers including gas, ion, solid state, semiconductor and dye lasers. Q-switching, mode locking and very short pulse operation. Application of lasers. Prerequisites: undergraduate courses in optics and electromagnetic theory or permission of the instructor.

EENG7777
3 Credits
**Optics**
Optical phenomena in the infrared and far-infrared/submillimeter regions of the spectrum. Topics include infrared-radiation sources, detectors, interferometers and resolution considerations, diffraction grating and Fourier transform spectrometers. Infrared imaging, two-lens systems, optical materials, aberrations, matrix method for laser cavities and imaging systems. Radiometry, atmospheric effects, uniaxial crystals and their use as electro-optical devices. Prerequisites: undergraduate courses in optics and electromagnetic theory or permission of the instructor.

EENG7778
3 Credits
**Electro-optical Properties of Materials**
Material properties of matter as needed for optical and electro-optical applications. Optical properties of dielectrics, metals and semiconductors; dispersion theory. Transmittance, reflectance and absorbance of light. Light mod-
Electronic Commerce

Electronic Commerce (M.S.)

The goal of the program is to provide graduate education that imparts a coherent body of managerial and technological knowledge centering on e-commerce. Graduates will acquire the educational background necessary to become performing e-commerce professionals, as well as obtain a solid foundation for lifelong learning necessary in a field that is certain to evolve very rapidly.

The total number of credits to be taken will be 42: of these, 18 are required courses, 12 are elective courses and 12 are prerequisites (some of which may be waived).

This program is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements

1. Graduation from an accredited college or university with a satisfactory academic record.

2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in computer science with a minimum grade point ratio (GPR) of 3.00 and no grade below C or is a Fairleigh Dickinson University computer science graduate and has an undergraduate GPR of 3.00 or is a non-Fairleigh Dickinson University computer science graduate and has an undergraduate GPR of 3.50. This GRE-waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. The GRE requirement also is waived for applicants who have completed a master’s degree.

3. Three letters of recommendation.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.
Requirements for the Master of Science Degree

1. Students must complete 42 credits in approved graduate courses. The 42 credits are distributed as follows: 12 credits of prerequisite courses, 18 credits of core requirements and 12 credits of elective courses. Students with a background in the field may reduce the number of required courses by having some or all of the prerequisite courses waived. In any event, a minimum of 30 credits will be required for the degree. Requests for waivers must be made in writing prior to the beginning of the first semester.

2. Students must earn a cumulative grade point ratio (CGPR) of at least 2.75 for the prerequisite courses, if required, or be subject to dismissal from the program. Students may take no more than 6 credits of core or elective courses before completing all of the prerequisites.

3. Students must earn a CGPR of 2.75 for the 30 credits beyond the prerequisite courses.

Prerequisite Courses (12 credits)
The following courses will be waived for qualified students:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT5012</td>
<td>Financial Accounting: End-User Applications</td>
<td>2</td>
</tr>
<tr>
<td>CSCI5505</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5525</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>ECON5012</td>
<td>Economic Analysis</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012</td>
<td>Marketing Principles</td>
<td>2</td>
</tr>
</tbody>
</table>

Required Courses (18 credits)

CSCI6623  
Database Systems                                      3

CSCI6720  
Management Information Systems                         3

CSCI6751  
Computer Networks                                      3

CSCI6758  
Electronic Commerce                                     3

CSCI6844  
Programming for the Internet                             3

CSCI7795  
Building Electronic Commerce Systems                     3

E-commerce Electives (12 credits)
12 credits (four courses) are to be selected from the courses listed below. However, students have the option of registering for a 3-credit internship (which counts as one elective course) after completing 18 graduate credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI6638</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6752</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6810</td>
<td>Java and the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6820</td>
<td>J2EE Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6882</td>
<td>Data Warehouse and Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7727</td>
<td>Development of MIS 1: Project Management and Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7781</td>
<td>Advanced Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7791</td>
<td>Information Systems for Competitive Advantage</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must satisfy the prerequisites of the courses that they will take.

Academic Credits: Courses with numbers 6000 or higher completed through this certificate program can be credited toward the M.S. in electronic commerce program. Other courses may be substituted with prior approval of the student’s academic adviser.

Course Descriptions
English for Professional Success

Programs in Language, Culture and Professional Advancement (PLCPA) offers courses in English for Specific Purposes (ESP) for international students and any interested domestic students. These courses are called English for Professional Success (EPS), and they have taken the place of English as a Second Language (ESL) courses since fall 2006. The EPS courses have a dual purpose: to ensure the academic as well as professional success of international students. Students will be exposed to the different genres of academic and professional discourse in their different fields of study.

Placement Testing

While students may have achieved the TOEFL or other proof of English-proficiency score required for admission, further development in English proficiency may be necessary to support academic achievement and to ensure effective progress in the students' chosen academic program. All incoming graduate international students, unless exempt from testing, must be tested for placement during the orientation session. New international students should not assume that they are exempt from this English test even though they have had many years of English education in their home countries or abroad. Students will be placed into or exempted from taking an EPS course based on the result of their placement test.

Graduate students who are placed into an EPS course must take the lecture and corequisite lab and will be charged a fee upon registration. Since fall 2007 and spring 2008, respectively, graduate students who were placed into an EPS course and who matriculated into a University College: Arts • Sciences • Professional Studies or into a Silberman College of Business degree program were required to take the EPS lecture and corequisite lab. Since fall 2011, all the remaining colleges on both New Jersey campuses (Maxwell Becton College of Arts and Sciences and Anthony J. Petrocelli College of Continuing Studies) have been required to take the EPS lecture and corequisite lab.

English for Professional Success (EPS) Courses

Students will take only one EPS course. However, to exit the program, a student must meet the learning objectives set by the curriculum. Students who fail to meet the minimum standards required to pass the course will have to repeat it. Upon exiting the program, graduate students do not need to take any other English or writing courses unless required by their own department. The credits for the EPS5109 course is not figured into the grade point ratio for graduate students but remain as a permanent record on the students’ transcript.

The courses offered are:

EPS5109, EPS5119
English for Occupational Purposes; English for Academic Purposes (required)........ 3
EPS5201
English for Professional Success: Global Exchange — New York City as a Classroom (optional)........ 3

Course Offerings

Courses offered fall, spring, summer and/or winter are so noted. To determine availability of courses not so designated, please check with the unit.

English for Professional Success (EPS) Courses

EPS5109, EPS5119
3 Credits
Lecture 2.5 hours; Laboratory 1.5 hours
English for Occupational Purposes; English for Academic Purposes
English language for academic and professional success. (Required)

EPS5201
3 Credits
English for Professional Success: Global Exchange — New York City as a Classroom
Perceived through the prisms of cultural ethnography and the significance of everyday experiences, this course will utilize New York City as a resource and a classroom to study cross-cultural understandings and misunderstandings. Students will study the multicultural aspects of the city in the context of modern life and situate their findings within a historical context. In addition to studying cross-cultural issues in context, students will be improving their academic language skills while exploring topics of interest through a variety of activities and assignments. (Optional)

Executive Programs

The University offers programs designed for executives in a specific field.

Management (M.B.A.) for Executives — General Management
See page 68.

Finance (M.B.A.)
See Business, Finance, page 63.

Forensic Psychology (M.A.)

General/Theoretical Psychology (M.A.)
Health Science

**Health Science (M.H.S.)**

The Master of Health Science (M.H.S.) is a 31–33 credit blended degree program (combining online and in-person course work) designed with four tracks allowing students unique opportunities for career development and advancement. The 33-credit Gateway to Professional Studies program can be completed in as little as one year, while all concentrations can be completed on a self-paced schedule that suits the needs of working professionals and seeking career advancement.

The first track in the M.H.S. is the Gateway to Professional Studies (GPS), which has a curriculum that includes foundational courses that will provide an interdisciplinary background in biomedical sciences that can be used as an advanced preparation for professional schools including medical, dental, veterinary and pharmacy schools. In addition, there are three tracks that provide the opportunity for specialization in clinical research administration, regulatory science and health informatics. All students obtaining the M.H.S. will complete a health science core consisting of course work around the legal, ethical, managerial and public-health issues facing all aspects of health care.

Following completion of the core curriculum, students will have the option to pursue one of the four distinct tracks available.

The Gateway to Professional Studies track is a diverse mix of courses that will be taught online, blended and face-to-face and is intended to further prepare students for professional school. Students within this track will complete course work in biochemistry, pharmacology, communication skills, histology, anatomy, physiology and other relevant topics of study.

The other three specially designed tracks provide focused expertise in the areas of clinical research administration, regulatory science or health informatics. Students in these specialized tracks will complete the initial health science core prior to moving into more advanced and specialized course work in preparation for future careers in the pharmaceutical industry, regulatory affairs, health outcomes and health-care delivery.

Courses in these tracks will be offered in person, with options for online and hybrid course models being introduced as appropriate.

**Summary**

The growth of employment opportunities within the health sciences has been marked and dramatic over the last decade, and projections indicate exponential growth for these areas by the year 2020. Careers in this area have both high earning potential and significant opportunity for growth, making these fields desirable for students. Many organizations involved in the pharmaceutical industry, health care delivery and health science-related fields place significant value on graduates with the knowledge and skills that are translational across traditional boundaries in health care. These four M.H.S. programs equip students with tangible skills that will provide them with opportunities for employment in areas that are growing much faster than the rate at which graduates can be produced.

The Master of Health Science program in clinical research, regulatory science and health informatics also address the filling of a void that few educational institutions have addressed. Some local graduate programs provide some content within this area of study, though they are not designed to create specialties to serve particular areas of health care. The emphasis this program places on prescription-drug use, in conjunction with its affiliation with the School of Pharmacy and Health Sciences, provides unique opportunities for synergy and collaboration between the students and faculty.

The area of clinical research is a fast-growing and rapidly changing environment. Not only are there increasing needs for evidence to address the safety and efficacy of new medical technologies, but there is also a demand from payers for evidence as it relates to effectiveness and efficiency. Professional career opportunities in this area seem to be increasing at a faster rate than ever before, with the advent of new biotechnology corporations that are emerging throughout the world and existing corporations continually pushing forward into new areas of advanced research. In fact, the Bureau of Labor Statistics projects a 40 percent increase in demand for medical scientists within this area of work from the period 2008–2018. A critical need for scientists with the ability to conduct rigorous, ethically grounded and credible research will continue to grow into the future.

Regulatory-science specialists are also in high demand, and the New Jersey area has greater opportunity than ever before due to the influx of biotechnology and small-market pharmaceutical companies engaged in the development of new products. These entities are constantly in need of experts who can navigate the complex regulatory pathways toward product approval. This career, chosen as one of CNNMoney magazine’s “Best Jobs,” has a projected job-growth rate of 25 percent. Opportunities for employment will be bolstered by a master’s degree in this area, as very few programs educate and train students to attain this skill set.

The area of health informatics has been identified by the Bureau of Labor Statistics as one of the 20 fastest-growing occupations in the United States. More than 35,000 new jobs are expected by 2018, and the implementation of electronic health records technology indicates that the need for specialists trained with this skill set will be even greater than these projections predict. Coupling existing health career-related experience with that of a health informatics specialist creates opportunity for students in any and every area of health care across this continuum.

These four M.H.S. tracks are described more completely on the following pages.

**Requirements for the Master of Health Science Degree**

1. All graduate M.H.S. students are required to complete the program within five years. Applications for extension are subject to departmental approval.

2. For the Gateway to Professional Studies Track, students are required to maintain a minimum overall grade point ratio (GPR) of 3.00 and must not earn more than one C-level grade (C or C+) throughout graduate course work. If a student takes any course twice without achieving the equivalent of a B or higher, he/she will be subject to dismissal. Students who earn less than B- or one F grade will be subject to dismissal.

3. See specific tracks for requirements, Gateway to Professional Studies page 151, regulatory science page 151, clinical research administration page 152 and health informatics page 153.
Gateway to Professional Studies Track

NOTE: Enrollment in this program is currently offered only at FDU's Florham Campus in Madison, New Jersey. Applications are processed on a rolling admissions basis.

The primary goal of this degree track will be to transform students on the cusp of admission into professional school into more competitive and prepared applicants for subsequent admission into health-profession programs. During this one-year intensive track, students will work on broadening their educational horizons within the biomedical sciences to assist with their application to professional school or to better prepare them for employment in the biomedical industry.

The M.H.S. basic track is 53 credits and is designed for students who have completed their bachelor's degree in chemistry, biochemistry, biology, pharmacy or a related field and who plan to attend professional school including medical, dental, veterinary and pharmacy.

This Gateway to Professional Studies (GPS) will enhance the student’s application portfolio and will make the student more competitive for admission into professional school. If professional school is not desired, then this GPS track will provide the student with a solid background for a career in biomedical sciences, business and management, science teaching and pharmaceutical sales.

Upon completion of this track, students will be able to:

• Demonstrate an understanding of the role values/ethics in human services and conduct themselves according to the appropriate professional ethics in the workplace and/or professional program.
• Demonstrate an understanding of the role of drug design, discovery and development in the health professions and the impact these things have on the individual and on public health.
• Demonstrate master's-level skills in professional writing and program planning and management.
• Demonstrate a strong knowledge base specifically in the areas of anatomy, physiology and biochemistry.

Graduates who achieve these objectives will be better prepared to apply to (or reapply to) professional schools with a more competitive portfolio. If subsequent admission is not desired or achieved, then this course of study could also be used as increased general preparation and training for employment and or advancement in the pharmaceutical or biotechnology industry.

This program is offered under the auspices of the department of chemistry and pharmaceutical science, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admissions Criteria

Students in each of the specialized tracks will be considered for admission based upon the following criteria:

1. A science baccalaureate degree with a minimum science grade point ratio (GPR) of 3.00 is required in any one of the following areas: chemistry, biochemistry, biology, pharmacy or related science field.

2. Students with a bachelor's degree in a different field will have the option of showing transcript evidence of successful completion of the following course work with a grade of B or higher in each course: General Chemistry I and II and Lab, Organic Chemistry I and II and Lab, Physics I and II and Lab, Biochemistry, General Biology I and II and Lab, Anatomy and Physiology I and II and Credits Lab, Calculus I, Statistics.

3. Students are expected to have an overall undergraduate GPR of 3.00. (For the Gateway to Professional Studies track, there is some flexibility concerning the 3.00 GPR requirements. For example, students who fall below the required GPR but with above-average scores on the MCAT, DAT, PCAT or GRE may be eligible for consideration.)

The application package must include:

1. A completed FDU Graduate Admissions Application.
2. Official undergraduate and graduate transcripts from all colleges and universities attended.
3. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student's strengths and abilities).
4. Official test scores from one of the following standardized exams: MCAT, PCAT, DAT or GRE (if applicable); 5. Personal statement; and 6. Résumé or curriculum vitae.

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a conditional/probationary or nondegree basis.

Required Courses (33 credits)

Health Sciences Courses (Core) —

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HSCI6200</td>
<td>Ethics of Health Care Research</td>
</tr>
<tr>
<td>HSCI6250</td>
<td>Psychology for the Medical Sciences</td>
</tr>
<tr>
<td>HSCI7302</td>
<td>Epidemiology and Study Design</td>
</tr>
<tr>
<td>HSCI7401</td>
<td>Biostatistics</td>
</tr>
<tr>
<td>HSCI8806</td>
<td>Project Management</td>
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</tbody>
</table>

GPS Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL6891</td>
<td>Histology</td>
</tr>
<tr>
<td>BIOL6892</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>BIOL6893</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>CHEM6663</td>
<td>Introductory Medicinal Chemistry</td>
</tr>
<tr>
<td>CHEM6685</td>
<td>Pharmacology</td>
</tr>
<tr>
<td>CHEM6781</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHEM7500</td>
<td>Technical and Scientific Writing</td>
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</tbody>
</table>

Regulatory Science Track

The M.H.S. regulatory science track is a 31-credit program (inclusive of the 10 hours of required M.H.S. core credits) designed for preprofessional students who are seeking further specialization in regulatory sciences and for working health care professionals who are looking to enhance their standing within this growing and evolving field of study. Educational programming will provide students with a working understanding of regulatory history and theory, federal and state regulatory structures relevant to health care products and professional practices, regulatory compliance methods in the health care industry, health care product patent-licensing processes and the common research methods used in supporting product-licensing applications.

The primary goal of this degree program will be to prepare students for taking on significant roles within government agencies, pharmaceutical and biotechnological industries and health care provider organizations, as well as in other sectors of the health care industry where compliance and
regulation are crucial. The program will allow students to develop a comprehensive understanding of the protocols, procedures, statistical analysis, assessment or risk/benefit, documentation and legal and ethical concerns that play a critical role in the day-to-day responsibilities of the field.

Upon completion of this program, students will be able to:
- Demonstrate the constituent elements of federal and state regulations of health-care delivery and manufacture and distribution of pharmaceuticals and biologics in the U.S.
- Compare and contrast the governmental regulatory approaches for manufacture and distribution of pharmaceuticals and biologics in the U.S., Canada, Europe, South America and Asia.
- Generate statistical analyses and reports acceptable to governmental regulatory agencies in the U.S., Canada and Europe.
- Evaluate regulatory applications for new products or professional practices against applicable regulations, standards and guidances.
- Discern the moral, legal, ethical and financial implications of research data or licensing applications for specific pharmaceutical or biological products.
- Detect legal and regulatory requirements that can pose harm to patients and undue disruption to health care operations.
- Identify conflicting regulations at local, state and federal levels and evaluate ways to reconcile them for affected constituencies.
- Identify gaps in regulatory processes for particular health care products and services and propose policy solutions.

Graduates who achieve these objectives will be prepared to assume responsibilities requiring competencies associated with Level I and Level II of the Regulatory Science Professional Development Framework produced by the Regulatory Science Professional Society. Because most of the graduates of this program will have formal education in pharmacy or other health care professions, they will bring added dimensions to the knowledge and skills they acquired in regulatory sciences. Graduates will find rewarding career opportunities in health care provider organizations, health care consultancies, health care research and manufacturing industries, insurance providers, pharmacy benefit managers and state and federal government agencies.

This program is offered under the auspices of the FDU School of Pharmacy and Health Sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

**Admissions Criteria**

1. A bachelor of science degree with a minimum grade point ratio of 3.00 is recommended.
2. The GRE is recommended but not required. Other standardized tests such as PCAT, MCAT and DAT may be considered as well.

The application package must include:
1. A completed FDU Graduate Admissions Application;
2. Official undergraduate and graduate transcripts from all colleges and universities attended;
3. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student’s strengths and abilities);
4. Official test scores from one of the following standardized exams: GRE, PCAT, MCAT or DAT (if applicable);
5. Personal statement; and
6. Résumé or curriculum vitae.

Applicants who have not completed all the requirements for admission to the degree program may be permitted to enroll in classes for credit on a conditional/probationary or nondegree basis.

**Required Courses (31 credits)**

**Health Sciences Regulatory Science Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSCI7301 Biostatistics</td>
<td>2</td>
</tr>
<tr>
<td>HSCI7302 Epidemiology and Study Design Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8806 Project Management</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8811 Ethics of Health Care Research</td>
<td>2</td>
</tr>
<tr>
<td>PHAR6601 Health Care Systems and Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Regulatory Science Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSCI7810 Clinical Trial Design and Regulatory Requirements</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8810 Medical and Clinical Report Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Clinical Research Administration Track**

The M.H.S. in clinical research administration is a 31-credit program (inclusive of the 10 hours of required M.H.S. core credits) that will produce graduates with a wide array of knowledge encompassing various approaches to evidence generation, translation and application. Objectives for the clinical research track are drawn from competencies established by the Agency for Healthcare Research and Quality (AHRQ) for clinical research. Upon completion of the program students will be able to:
- Discern the knowledge and skill sets available from clinical research approaches needed to address specific health care issues and problems.
- Synthesize meaningful, relevant and important research questions that address important health care and public health problems that can be informed by systematic reviews of the literature, needs assessment and relevant theory and concepts.
- Select appropriate interventional, quasi-experimental or observational study designs to address specific clinical research questions.
- Collect primary health and health care data obtained by survey, qualitative or mixed methods, as well as assemble and integrate secondary data from existing public and private sources.
- Defend the ethical and responsible design, implementation and analysis of specific clinical research programs.
- Select the appropriate analytical methods to clarify associations between variables and to discern causal inferences.
- Design, construct and deliver written and verbal communication about the findings and implications of particular clinical research programs for both professional and lay audiences.
Many of the graduates will likely also have Pharm.D. degrees or degrees in other clinical or life sciences to bring a knowledge and understanding in therapeutics and health-care delivery to their clinical research course of studies. Graduates will be highly skilled, marketable scientists who can apply their knowledge and skills in an array of health care areas conducting or benefiting from clinical research.

This program is offered under the auspices of the FDU School of Pharmacy and Health Sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admissions Criteria
1. A bachelor of science degree with a minimum grade point ratio of 3.00 is recommended.

2. The GRE is recommended but not required. Other standardized tests such as PCAT, MCAT and DAT may be considered as well.

The application package must include:
1. A completed FDU Graduate Admissions Application;
2. Official undergraduate and graduate transcripts from all colleges and universities attended;
3. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student’s strengths and abilities);
4. Official test scores from one of the following standardized exams: GRE, PCAT, MCAT or DAT (if applicable);
5. Personal statement; and
6. Résumé or curriculum vitae.

Applicants who have not completed all the requirements for admission to the degree program may be permitted to enroll in classes for credit on a conditional/probationary or nondegree basis.

Required Courses (31 credits)

Health Sciences Clinical Research Administration Core

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
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<td>HSCI7301</td>
<td>Biostatistics</td>
<td>2</td>
</tr>
<tr>
<td>HSCI7302</td>
<td>Epidemiology and Study Design</td>
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<td></td>
<td>Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8806</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8811</td>
<td>Ethics of Health Care Research</td>
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Clinical Research Administration Requirements

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CLIN7104</td>
<td>Clinical Research Administration Capstone</td>
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<tr>
<td>CLIN8812</td>
<td>Clinical Trial Research Administration</td>
<td>3</td>
</tr>
<tr>
<td>CLIN8821</td>
<td>Regulatory Compliance for Pharmaceuticals</td>
<td>3</td>
</tr>
<tr>
<td>HSCI7810</td>
<td>Clinical Trial Design and Regulatory Requirements</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8810</td>
<td>Medical and Clinical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>HSCI8822</td>
<td>U.S. Regulatory New Drug Application and Submission and Dossier Preparation</td>
<td>3</td>
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Health Informatics Track

The M.H.S. health informatics track is a 31-credit program (inclusive of the 10 hours of required M.H.S. core credits) that will prepare students for a wide range of roles in health informatics, particularly as these roles involve the use of prescription drugs and biologics. Some of these roles will include, but will not be limited to: assessing health-informatics technology needs in health-care delivery systems; developing decision support tools at point of care; generating and managing capital and operating information technology budgets; developing, deploying and maintaining information technology hardware and software; assessing and improving information technology performance; and managing information technology workforce and partnerships.

Upon completion of the program students will be able to:
- Describe significant health information technology advances that have occurred in the last decades and include both the benefits and harm they have brought.
- Identify key attributes and metrics surrounding successful technology deployment and operation.
- Evaluate workflow in a variety of health-care delivery settings and develop information-technology solutions where improvements are possible.
- Develop and manage information-technology acquisition plans including technical requirements and contracting elements.
- Build and maintain operating environments in health-care delivery settings that can support selected health technology.
- Apply informatics standards to new and existing health informatics systems and processes.
- Apply human factors and hazard-analysis techniques to the development and deployment of health-informatics technologies within health-care delivery settings.

This program is offered under the auspices of the FDU School of Pharmacy and Health Sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admissions Criteria
1. A bachelor of science degree with a minimum grade point ratio of 3.00 is recommended.

2. The GRE is recommended but not required. Other standardized tests such as PCAT, MCAT and DAT may be considered as well.

The application package must include:
1. A completed FDU Graduate Admissions Application;
2. Official undergraduate and graduate transcripts from all colleges and universities attended;
3. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student’s strengths and abilities);
4. Official test scores from one of the following standardized exams: GRE, PCAT, MCAT or DAT (if applicable);
5. Personal statement; and
6. Résumé or curriculum vitae.

Applicants who have not completed all the requirements for admission to the degree program may be permitted to enroll in classes for credit on a conditional/probationary or nondegree basis.

Required Courses (31 credits)

Health Sciences Health Informatics Core

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td></td>
<td>Evaluation</td>
<td>3</td>
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</tbody>
</table>
This course is designed for students to learn Histology, Pharmacy and Health Sciences, and more about the organization of the cells of the body into tissues, organs and organ systems. Students will learn to correlate the structure of human tissue and identifying key elements distinguishing one tissue from another. (Equivalent to HSCI6892 Human Physiology.)

HSCI8006
Project Management

HSCI8403
Introduction to Lean Six Sigma

HSCI8811
Ethics of Health Care Research

PHAR6601
Health Care Systems and Policy

Health Informatics Requirements

HINF7106
Health Informatics Capstone

HINF7801
Informatics and Information Systems

HINF8802
Health Information Exchange and Security

HINF8803
Electronic Medical Records Management

HINF8804
Computational Modeling and Data Management

HINF8807
Human Factors in Informatics

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.

Health Science
Department of Chemistry and Pharmaceutical Science and School of Pharmacy and Health Sciences

BIOL6891
3 Credits
Histology
This course is designed for students to learn more about the organization of the cells of the body into tissues, organs and organ systems. Students will learn to correlate the structure of these cells, tissues and organs with their functions in the human body. Students will become familiar with examining images of stained sections of human tissue and identifying key elements distinguishing one tissue from another. Examples of diseased tissue, for example cancerous tissues, will be compared to normal tissues as well. (Equivalent to HSCI6891 Histology.)

BIOL6892
3 Credits
Human Physiology
This course provides the student with a high level of understanding of the physiological basis of the human body. The essential concepts of physiology and mechanisms of body function are presented at various levels of organization, ranging from cellular and molecular to tissue and organ system levels. Emphasis is placed on understanding the integrated regulation of various body processes among the major systems. Cardiovascular, respiratory, urinary, endocrine and reproductive systems will be covered. (Equivalent to HSCI6892 Human Physiology.)

BOL6893
3 Credits
Human Anatomy
The knowledge of human variability and susceptibility to disease begins with a thorough introduction to the basic structure of the human body that occurs in this course. The goals of the course are: to introduce the fundamental organization and structure of the human body and to begin the process of clinical observation by attention to detail and honing of observational skills. (Equivalent to HSCI6893 Human Anatomy.)

CHEM6663
3 Credits
Introductory Medicinal Chemistry
Based on all branches of chemistry, but especially organic chemistry, the focus of this course is on improving a drug’s therapeutic effect while minimizing its undesirable side effects. (Equivalent to HSCI6663 Medicinal Chemistry.)

CHEM6685
3 Credits
Pharmacology
A study of drugs, their history, sources, physical and chemical properties, compounding, biochemical and physiological effects, mechanism of action, absorption, distribution in the body and therapeutic uses. (Equivalent to HSCI6685 Pharmacology.)

CHEM6781
3 Credits
Biochemistry
Based on the chemistry of substances of biological significance, structures and mechanisms of hydrolytic and respiratory enzymatic activity, biosynthesis of proteins, bio-oxidations and molecular structures of complex molecules. (Equivalent to HSCI6781 Biochemistry for the Medical Sciences.)

CHEM7500
3 Credits
Technical and Scientific Writing
This course is an introduction to learning the written and oral communication of technical information. Assignments include writing and presenting proposals, reports, standard operating procedures, technical papers and documentation. (Equivalent to HSCI7500 Technical and Scientific Writing.)

CLIN7104
3 Credits
Clinical Research Capstone
This course is a hands-on, practice-based course that provides an intensive research experience alongside a trained professional within the clinical research framework. Students will be expected to participate in an active, engaging experience that provides insight into the role of the clinical researcher within the hospital and health system, pharmaceutical, biotechnology, device or other related environment.

CLIN8812
3 Credits
Clinical Trial Research Administration
This course provides a focused overview on the logistic and operational factors in conducting and completing a clinical research study. This includes discussion on the responsibilities and relationships for each of the professionals and parties involved in bringing the study from conceptualization through implementation and into the phase of data evaluation and report writing.

CLIN8821
3 Credits
Regulatory Compliance for Pharmaceuticals
This course will review the regulatory pathways for drugs, biologics, biosimilars, medical devices and other pharmaceutical and biotechnology areas of relevance. Discussions on compliance strategies, risks and processes within each framework will provide insight into the challenges (financial, ethical and procedural) facing each industry and area.

HINF7106
3 Credits
Health Informatics Capstone
This course is a hands-on, practice-based course that provides an intensive research experience alongside a trained professional within the health informatics framework. Students will be expected to participate in an active, engaging experience that provides insight into the role of informatics within the hospital and health system, pharmaceutical, biotechnology or other related environment.

HINF8801
3 Credits
Informatics and Information Systems
This course provides an overview of the practical components of health care information systems, including an introduction to the capture, storage and processing of electronic medical records, the changing dynamics of health informatics and the impact of technology, security and regulation on the transfer and storage of health information.
This course provides an overview of the challenges and strategies of management within health care organizations and discusses the System Management and Planning roles that informatics and information systems play in providing necessary data, information and organization to each of the major components within the organization. Discussion on how to be an effective leader and manager, and how to provide valued insight and information to document cost savings, efficiency, projected and increased return on investment and potential organizational adjustments and improvements will take place.

HINF8807 3 Credits
**Human Factors in Informatics**

Human factors is a behavioral science with applications in almost every field, including ergonomics, software design, medical-device development and health care. By definition, this discipline is concerned with the interaction between humans and the systems with which they perform work. Increasingly, the processes that health care workers navigate are technologically laced and data-driven. This presents a perfect area for the expert informaticists to liaise. This course will investigate how people interact with technology and data. Through comprehensive study, future informaticists will identify how best to apply technology to health-care processes, how to manage change, best practices in data exposition and useful instructional design techniques. While the bulk of this course deals with how people interact with technology, it will also explore how programmatic reporting of outcomes influences the technologies and actions we take in health care. A focused exploration of mortality, readmissions and preventable harm will complement the practical use of technology students will be learning in other courses in informatics sequence.

HSCI6665 3 Credits
**MedicalChemistry**

Based on all branches of chemistry, but especially organic chemistry, the focus of this course is on improving a drug’s therapeutic effect while minimizing the undesirable side effects. (Equivalent to CHEM6663 Introductory Medicinal Chemistry.)
Health Science

HSCI6893
3 Credits
Human Anatomy
The knowledge of human variability and susceptibility to disease begin with a thorough introduction to the basic structure of the human body that occurs in this course. The goals of the course are to introduce the fundamental organization and structure of the human body and to begin the process of clinical observation by attention to detail and honing of observation skills. (Equivalent to BIOL6893 Human Anatomy.)

HSCI7771
3 Credits
Advanced Organic Synthesis
Modern synthetic techniques and procedures, emphasizing the theoretical background of the procedures and preparing the student for advanced research. (Equivalent to CHEM4371 Organic Synthesis and CHEM7771 Advanced Organic Synthesis.)

HSCI7810
3 Credits
Clinical Trial Design and Regulatory Requirements
This course covers the principles of clinical-trial design, including determination and evaluation of study objectives; commonly used methodologies of study design; and the ethical, legal, statistical, sociological and epidemiological considerations that play a role in the design of clinical protocols.

HSCI7401
3 Credits
Biostatistics
A comprehensive survey of the theoretical and practical aspects of descriptive and inferential statistical procedures — z tests, t tests, analysis of variance, correlation and regression analysis and nonparametrics. Emphasis is on why and when to use the various procedures as well as on the interpretation of statistical results.

HSCI7500
3 Credits
Technical and Scientific Writing
Introduction to learning the written and oral communication of technical information. Assignments include writing and presenting proposals, reports, standard operating procedures, technical papers and documentation. (Equivalent to CHEM7500 Technical and Scientific Writing.)

HSCI7731
3 Credits
Introduction to Health Systems and Policy
This course presents an integrated overview of traditional and contemporary approaches to financing and organizing the provision of health services in the United States. The course traces the evolution of the health care delivery system, with special attention given to the interplay between political, legal and socioethical dynamics in the formation of health policy at the federal and state levels of government. (Equivalent to PADM7731 Introduction to Health Systems and Policy.)

HSCI7771
3 Credits
Advanced Organic Synthesis
Modern synthetic techniques and procedures, emphasizing the theoretical background of the procedures and preparing the student for advanced research. (Equivalent to CHEM4371 Organic Synthesis and CHEM7771 Advanced Organic Synthesis.)

HSCI8403
3 Credits
Introduction to Lean Six Sigma
This course introduces pharmacy students to the concepts and methods of Lean Six Sigma (LSS). LSS is a method that relies on effective teamwork to improve performance by decreasing waste and creating a lean enterprise. A framework of both Lean and Six Sigma tools will be covered providing a roadmap and diagnosis for workflow improvements and reduction in variability. The skills learned in this class will build capabilities that can help improve workflow and reduce errors in the pharmacy setting and organize processing in the pharmaceutical industry.

HSCI8806
3 Credits
Project Management
The purpose of this course is to integrate the essential components of project planning and management with health care information systems for health care leaders. The course will outline the process for developing, implementing and evaluating project plans as well as integration of communication and project life-cycle theory.

HSCI8810
3 Credits
Medical and Clinical Report Writing
This course provides a basic overview of the necessary means of communication for the clinical research professional, including methods for documentation, presentation of data and reporting of results. Focused attention will be paid to developing approaches for communication that allows for effective information transfer to a broad and diverse set of audiences, including patients, physicians, nurses, pharmacists, researchers and the general public.

HSCI8811
2 Credits
Ethics of Health Care Research
The student will examine the ethical issues that confront health care providers and patients. The medical, scientific, moral and socioeconomic bases of these issues and the decision-making process that providers and patients engage in are analyzed. Topics include informed consent, the role of institutional review boards, euthanasia and the allocation of scarce resources. Corequisite: PHRM8802 Health Information Exchange and Security, PHRM8812 Clinical Trial Research Administration or PHRM8821 Regulatory Compliance for Pharmaceuticals. Note: only for students in Master of Health Science.

HSCI8822
3 Credits
U.S. Regulatory New Drug Applications and Submission and Dossier Preparation
This course will review steps and consideration in preparing a New Drug Application (NDA) submission to the U.S. Food and Drug Administration (FDA). Students will become knowledgeable on terminology used in NDA submission process in an electronic (e) Common Technical Document (CTD) format, Extensive Markup Language (XML) backbone, portable document format (PDF) file, structured product labeling format (SPL) for U.S. package-insert labeling, what area and statistical analysis systems (SAS) transport files. The course will provide a fundamental understanding of the different types of NDAs to file for under Section 505 of the Federal Food and Drug Cosmetic Act for marketing authorization in the United States and describe the components and essential documents necessary for inclusion in an NDA submission. Students will learn how to consider key sections and data within the U.S. NDA submission for consideration of global regulatory submissions outside of the U.S. by using the CTD format and International Conference on Harmonization (ICH) principles

PADM7731
3 Credits
Introduction to Health Systems and Policy
This course presents an integrated overview of traditional and contemporary approaches to financing and organizing the provision of health services in the United States. The course traces the evolution of the health care delivery system, with special attention given to the interplay between political, legal and socioethical dynamics in the formation of health policy at the federal and state levels of government. (Equivalent to HSCI7731 Introduction to Health Systems and Policy.)
PHAR6601
3 Credits
Health Care Systems and Policy
This course provides a comprehensive overview of the structure and operations of the United States health care delivery system. Major forces and trends that are likely to shape the external environment and linkages among industry stakeholders are identified and examined. Fundamentals of health care economics, financing, reimbursement, quality assurance and political policymaking are discussed with due regard for social and ethical implications. The spectrum of life sciences is considered in relation to the continuum of health care delivery. Students will prepare a position paper that applies course concepts to a contemporary issue of relevance to their specific career interests.

REGS7104
3 Credits
Regulatory Affairs Capstone
This course is a hands-on, practice-based course that provides an intensive research experience alongside a trained professional within the regulatory science framework. Students will be expected to participate in an active, engaging experience that provides insight into the role of the regulatory professional within the pharmaceutical, biotechnology, device or other health-related environment.

REGS7106
3 Credits
Health Informatics Capstone
This course is a hands-on, practice-based course that provides an intensive research experience alongside a trained professional within the health informatics framework. Students will be expected to participate in an active, engaging experience that provides insight into the role of informatics within the hospital and health system, pharmaceutical, biotechnology or other related environment.

REGS8821
3 Credits
Regulatory Compliance for Pharmaceuticals
This course will review the regulatory pathways for drugs, biologics, biosimilars, medical devices and other pharmaceutical and biotechnology areas of relevance. Discussions on compliance strategies, risks and processes within each framework will provide insight onto the challenges (financial, ethical and procedural) facing each industry and area.

REGS8822
3 Credits
U.S. Regulatory New Drug Application and Submission and Dossier Preparation
This course will address the necessary data collection, clinical procedures, protocols and preparatory steps necessary for the successful filing of regulatory documents. This will include discussions on expectations, filing procedures and other processes within both the FDA and other international frameworks.

Homeland Security (M.S.)
The Master of Science (M.S.) in homeland security degree was offered beginning in January 2008. It is the first graduate degree in homeland security offered in the state of New Jersey.

The M.S. in homeland security program is a 36-credit off-campus and online graduate program which focuses on practical and theoretical aspects of enforcing and ensuring homeland security. The curriculum provides three areas of study that provide master's-level studies for nontraditional students already involved in homeland security. In addition, the program encourages the development of high-quality, applied research for practitioners in the field of homeland security. The degree is particularly suited for working adults who are interested in enhancing their credentials.

The M.S. in homeland security degree offers concentrations in: homeland security — terrorism and security studies; homeland security — emergency management; and homeland security leadership. Students who complete six courses in a particular area of concentration will be awarded a certificate that signifies completion of that course of study.

Courses in the M.S. program are offered in person and online. The online program is designed to meet the needs of police, firefighters, first responders, military personnel and others who are unable to attend classes in person because of their work demands. Students have the ability to take courses in a specialization that focuses on their specific areas of responsibility. The online program is offered in an asynchronous mode, which fits the work schedules of many in government and the emergency services community.

The M.S. in homeland security program is designed for individuals who are working in the field of homeland security. Events throughout the world have increased those employed in the discipline, and new demands in the jobs have required students to increase their level of education.

This program is offered under the auspices of the School of Administrative Science, Anthony J. Petrocelli College of Continuing Studies, at the Florham Campus, Madison, New Jersey; at the Metropolitan Campus, Teaneck, New Jersey; and locations throughout New Jersey.
Admission Requirements
Candidates for admission to the Master of Science in homeland security degree must be highly motivated individuals who have work experience in the area of homeland security as well as a bachelor's degree from an accredited institution with at least a cumulative grade point ratio of 3.00. Care will be taken to ensure a diversity of philosophies and academic backgrounds in the classes.

Students seeking admission to the program will have to submit:

1. A completed application;
2. Transcripts from all previous undergraduate, graduate and postgraduate studies;
3. A written statement of 1,000 words on current job responsibilities, duties and management philosophy; and
4. Three letters of recommendation, including from at least two former instructors/professors.

There is no Graduate Record Examination (GRE) or Graduate Management Admission Test (OMAT) requirement although there is a requirement for Test of English as a Foreign Language (TOEFL) scores for international students.

Requirements for the Master of Science Degree
1. Completion of a minimum of 36 graduate credits.
2. Cumulative grade point ratio of 3.00 for the degree program of study.
3. Cumulative grade point ratio of 3.00 in the core curriculum.
4. Minimum of 50 credits completed at Fairleigh Dickinson University.
5. Maximum of six years to complete the master's degree requirements.

Up to six credits of graduate course work may be transferred from another college or university if completed within the six-year period. Courses submitted for transfer credit will be reviewed and evaluated by the director of the Master of Science in homeland security program. In assessing requests for transfer credits, the M.S. in homeland security faculty may require students to complete additional course work to update knowledge and skills to meet master's degree requirements.

The following are the specific program requirements for the master's degree. These curriculum areas and credit-distribution requirements are designed to provide students with flexibility in planning a program of study within a focused framework of professional development.

It is important to note that since homeland security is such a broad area with many different components, a number of areas of specialization are being proposed. The four required courses (MSHS7601 Homeland Security and Constitutional Issues; MSHS7602 Research and Policy Analysis; MSHS7603 Weapons of Mass Destruction/Terrorism Awareness; and MSHS7604 Strategic Planning, Implementation and Evaluation, the capstone course) are M.S. in homeland security courses and account for 12 credits of the 36-credit program. To satisfactorily complete an area of specialization, the students must complete an additional 18 credits of the program in the area of specialization. The remaining six credits for the degree requirements can be chosen electives taken from other M.S. in homeland security courses. No more than six credits will be waived for previous experience that is equivalent to any course offering.

Each course will have a standardized syllabus with specific learning outcomes. Textbooks will be selected for each class based on content relative to the topics by the faculty in concert with the administrators of the program. Each course will have at least one required textbook. The nature of the courses also mandates the use of case studies that will link the practical application with theory.

A. Required Courses
All students enrolled in the M.S. in homeland security program must complete the following:

- MSHS7601 Homeland Security and Constitutional Issues
- MSHS7602 Research and Policy Analysis
- MSHS7603 Weapons of Mass Destruction/Terrorism Awareness
- MSHS7604 Strategic Planning, Implementation and Evaluation (capstone course)

B. Areas of Specialization
The diversity of homeland security responsibilities requires various areas of specialization. The initial program includes the areas of specializations with their respective courses as follows:

Homeland Security — Terrorism and Security Studies (any six courses)
- MSHS6601 Terrorism Issues and Implications
- MSHS6602 Computer and Network Security
- MSHS6603 Cyber Forensics Issues and Impacts
- MSHS6604 Assessing Internal and External Threats
- MSHS6605 Preparing for Catastrophic Emergencies
- MSHS6606 Historical Perspectives of Terrorism
- MSHS6607 Border Security: Policies, Actions and Implications
- MSHS6608 Terrorism and Disaster Management
- MSHS6609 The Face of Terror
- MSHS6610 Bio-terrorism Preparedness and Response

Homeland Security — Emergency Management (any six courses)
- MSHS6611 Emergency Management
- MSHS6612 GIS in Emergency Management
- MSHS6613 Organizational Planning for Emergency Situations
- MSHS6614 Effective Risk Analysis
- MSHS6615 Managing Responses to Environmental Emergencies
- MSHS6616 Stress Awareness and Management
- MSHS6617 Sociological Effects of Disasters
- MSHS6618 Emergency Management Policies, Analysis and Implications

Homeland Security Leadership (any six courses)
- MSHS6619 Collaborative Leadership
- MSHS6620 Organizational Leadership
- MSHS6621 Human Resource Management
- MSHS6622 Effective Team Building
- MSHS6623 Implementing Organizational Change
- MSHS6624 Effective Decision Making for Organizations
- MSHS6625 Organizational Communication
- MSHS6626 Resolving Conflict in Organizations
- MSHS6627 Values and Ethics for Decision Making

Additional courses will be developed in concert with appropriate faculty at the University.

Note: Students who successfully complete an area of specialization will also receive a graduate certificate in the appropriate program.
Graduate Certificate Programs
Students who successfully complete an area of specialization will also receive a graduate certificate in the appropriate program.

Homeland Security — Emergency Management
This 18-credit, six-course certificate focuses on the area of emergency management. Homeland security requires that the first-responder community and citizens develop the capability to prepare for, protect against, respond to, recover from and mitigate all hazards that may impact anytime and anywhere. The field of emergency management is a broad area of study, which includes natural disasters, accidents or acts of terrorism.

Homeland Security Leadership
This 18-credit, six-course certificate focuses on the critical area of leadership in homeland security. Leadership is essential for successfully carrying out programs or tasks. This certificate is designed to meet the personal and professional development goals of those individuals in the broad field of homeland security, such as first responders, law enforcement, emergency management, various security personnel, health and hospital workers and the military.

Homeland Security — Terrorism and Security Studies
This 18-credit, six-course certificate focuses on terrorism and security studies. The Post-9/11 world has made many sectors of the public, private and not-for-profit sectors involved in preventing and combating terrorism as they try to ensure a safe and secure nation. The knowledge provides both historical and current information to add to the knowledge of various threats posed by terrorist organizations, whether domestic or international, and to provide organizations to prepare for the risks associated with such activities.

Course Offerings

Homeland Security
School of Administrative Science

Required Courses

MSHS7601
3 Credits
Homeland Security and Constitutional Issues
This required course provides an overview of constitutional issues, statutes and case law that govern homeland security professionals at the local, state and federal levels. Social, ethical and political implications of actions intended to preserve the safety and security of the citizens are studied in relationship to the legal constraints placed on the systems. This course will utilize case studies.

MSHS7602
3 Credits
Research and Policy Analysis
This required course is designed to develop critical-thinking skills that students need for completion of their academic work as well as in their professional lives. The course will assist students in understanding the research process, develop a research question, assess relevant literature to support the research, select and use an appropriate research methodology, conduct the research and evaluate the results. The end result will be a well-written research report.

MSHS7603
3 Credits
Weapons of Mass Destruction/ Terrorism Awareness
This required course will explore the use of weapons of mass destruction (WMD) and the link to terrorist activities. Included in the course are: definitions of effects of nuclear, chemical, biological and radiological weapons; types and characteristics of biological- and chemical-warfare agents; potential modes of nuclear and radiological terrorism; use of improvised nuclear devices (INDs) and radiological dispersal devices (RDDs); Large Vehicle Borne Improvised Explosive Devices (VBIEDs); the motivations, capabilities, techniques and practices of terrorist groups to acquire and use WMD; and the use and attempted use of WMD against countries by internal and external groups.

MSHS7604
3 Credits
Strategic Planning, Implementation and Evaluation
This required course will link strategic planning with strategic management. This is the capstone course of the program and requires the completion of a thesis. Strategic planning links the vision, mission and guiding principles with the internal and external environment in which the organization exists. The course will explore security formulation, the drivers of homeland security issues for the historical and emergency issues and the results of such policies. Organizations need to understand how strategic plans are implemented and then reviewed and evaluated as part of a continuous improvement process.

Areas of Specialization

MSHS6601
3 Credits
Terrorism Issues and Implications
This course will investigate the concepts, ideologies, goals, strategies, tactics and methods used by terrorist groups in the current and historical perspectives. The terrorists’ motives and their actions will be studied in relation to historic and current national and international policies. Terrorist organizations will be studied based on their specific criteria to better understand their influence on other nations. Also included will be the concepts of the media and terrorism, law and terrorism, the military response to terrorism, counterterrorism and antiterrorism approaches and governmental responses to terrorism as well as how the intelligence community categorizes and prioritizes resources to target groups and issues.

MSHS6602
3 Credits
Computer and Network Security
This course will investigate advanced topics in computer security and forensics. Included are topics such as cryptography, automatic-intrusion detection, firewalls, vulnerability scanning and advanced pattern matching as well as statistical techniques.

MSHS6603
3 Credits
Cyber Forensics Issues and Impacts
This course will investigate cyber terrorism and cyber crime, and how these differ from computer security. Technological advancements that are on the cutting edge present opportunities for terrorists, and it is necessary to explore the current domestic and international policies relative to critical infrastructure protection and methods for addressing issues.

MSHS6604
3 Credits
Assessing Internal and External Threats
This course will investigate the usefulness of threat assessment in various contexts, such as the workplace, infrastructure protection and public safety. Included in the course will be basic methods for examining vulnerabilities to attack, evaluating capacities of the potential attackers as well as their motivations and the role of the intelligence community in these actions. The course will link strategic analysis with priority setting and accountability.

MSHS6605
3 Credits
Preparing for Catastrophic Emergencies
This course will investigate a wide range of natural and manmade disasters, and develop appropriate plans for mitigating the problems. Natural disasters include a wide range of issues from outbreak of diseases, floods, earthquakes, fires and tornados. Manmade disasters include emergencies such as chemical spills, nuclear incidents, terrorist threats, transportation accidents and power outages.
MSHS6606
3 Credits
**Historical Perspectives of Terrorism**
This course will examine the social basis of fear and terrorism and the related consequences on society. Factors such as race/ethnicity, class, religion, politics, local and international policies and gender will be studied in the historical context of terrorism. Case studies will include terrorist techniques that have been used in the past.

MSHS6607
3 Credits
**Border Security: Policies, Actions and Implications**
Immigration policies and terrorism threats have increased the focus on national borders. This course will investigate issues relative to border security — from economic security to social and cultural integration or separation. The costs of attempting to maintain a secure border are discussed as are the implications of border security on free-trade agreements.

MSHS6608
3 Credits
**Terrorism and Disaster Management**
This course will focus on planning and preparing for terrorist acts as well as the area of disasters. It also focuses on the legal and ethical issues that surround planning for acts of terrorism or disasters and a study of the National Response Plan and its implications. The need for and how to develop interagency collaborative agreements from civilian, military and governmental entities will be explored.

MSHS6609
3 Credits
**The Face of Terror**
This course will examine various characteristics of terrorism — from left-wing terrorism to nationalist terrorism to religious terrorism to group dynamics to secret societies and cults and charismatic leadership. Also included are identification of underground terrorist cells, both domestic and foreign, state-supported and non-state-supported, as well as methods for dealing with the separate groups.

MSHS6610
3 Credits
**Bio-terrorism Preparedness and Response**
This course will investigate options to address the threat of a biological attack. Options for identifying a bio-attack and potential responses for addressing these issues will be included in the course. Case studies of actual incidents will be included in the course.

MSHS6611
3 Credits
**Emergency Management**
This course will explore the nature and rationale for emergency-management policies and processes. Included will be preparedness for natural and manmade hazards, optional strategies for dealing with such issues, appropriate planning modalities, public awareness techniques to assist in the process and stakeholder communication. Legal and ethical issues that impact emergency management also will be studied.

MSHS6612
3 Credits
**GIS in Emergency Management**
This course will provide an introduction to the basic concepts of geographic information systems (GIS) as well as their application to specific issues.

MSHS6613
3 Credits
**Organizational Planning for Emergency Situations**
This course will provide an overview of planning and management principles that can be utilized to address operational issues when an emergency situation arises as well as how to resume operations once the emergency is over. The course will also focus on how to minimize the impact of disasters on business operations.

MSHS6614
3 Credits
**Effective Risk Analysis**
This course will examine the natural and manmade disasters from a risk-assessment perspective. Development of plans to prepare for each type of disaster as well as control processes will be part of the course work.

MSHS6615
3 Credits
**Managing Responses to Environmental Emergencies**
This course will examine the theory and practices in terms of incident-command systems and emergency operating centers.

MSHS6616
3 Credits
**Stress Awareness and Management**
Stress is part of everyone’s life, but in emergency situations, stressors may adversely impact the individual as well as those being served. Leaders need to be aware of the impact of stress on the individual’s ability to perform at peak levels as well as the ability to make the best decisions. This course will investigate stressors and how these factors can be mitigated.

MSHS6617
3 Credits
**Sociological Effects of Disasters**
This course will explore how various populations respond to the various phases of disasters. Included in the course are: response to warnings, reaction to evacuation orders and civilian disobedience to orders as well as the development of strategies for the organization, individuals and groups.

MSHS6618
3 Credits
**Emergency Management Policies, Analysis and Implications**
This course will investigate management of complex emergency-management operations using incident-management systems. The role of the emergency-management operation centers as well as current policies in reacting to disasters will be explored. Case studies of emergency-management policies and their implications will be analyzed to determine areas in need of improvement.

MSHS6619
3 Credits
**Collaborative Leadership**
This course will investigate the concept of leadership exhibited by a group that is acting collaboratively to resolve issues that all feel must be addressed. Since the collaborative process ensures that all people that are affected by the decision are part of the process, the course will explore how power is shared in the process and how leadership is developed.

MSHS6620
3 Credits
**Organizational Leadership**
This course will investigate examples of past and present leadership models. The moral framework for leadership and decision making in organizations will provide the basis for exploring current organizational leadership models as well as assisting the students in assessing their own leadership roles.

MSHS6621
3 Credits
**Human Resource Management**
This course addresses the challenges of managing human capital in organizations focusing on homeland security. Current issues in recruiting, selecting and moving individuals through the organization will be studied. In addition, team building, problem solving, decision making and human resource-planning skills will be explored as will the leadership skills of mentoring, advising, counseling and disciplining individuals in the organization.

MSHS6622
3 Credits
**Effective Team Building**
As organizations move to empower employees to work in a team setting with a high degree of autonomy, it is necessary to develop high-performance teams. This course investigates what makes teams effective. Various methodologies that have resulted in exceptional teams and team results will be studied.
Hospitality Management Studies

MSHS6623
3 Credits
Implementing Organizational Change
This course will explore the issues of resistance to change and obstacles to change in relationship to organizations. Theories relative to change will be studied in terms of the restructuring process, leadership roles and the settings in which the work is done.

MSHS6624
3 Credits
Effective Decision Making for Organizations
This course explores the process for effective decision making using decision analysis theory, appropriate mathematical processes, evaluating inputs for applicability and applicable quantitative and qualitative methods. The course will utilize “what if” challenges and will consider individual and organizational preferences as well as environmental certainty and uncertainty.

MSHS6625
3 Credits
Organizational Communication
An introduction to communication in organizations includes relevant theories, leadership, diversity, teamwork and ethics. Included in the course are definitions of organizational culture, leadership, teamwork, diversity, ethics and informal and formal communication as well as how they influence and impact organizational communication. The course will also investigate organizational communication systems and their relevant theories as well as comparing and contrasting the major theories.

MSHS6626
3 Credits
Resolving Conflict in Organizations
This course will investigate the sources of conflict in organizations, the sources of such conflict and various modalities for resolving these conflicts. Conflict in organizations can be manifested in various ways, such as interpersonal conflict, intragroup conflict, intergroup conflict and interorganizational conflict. Resolving conflict includes compromise, collaboration, negotiation and addressing individual sources of conflict.

MSHS6627
3 Credits
Values and Ethics for Decision Making
Personal and organizational ethics and values guide decision making. There are times when two or more ethical principles are in conflict. This course will explore how to maximize the basic elements that form the context for ethical decision making.

Hospitality Management Studies (M.S.)
The hospitality field currently ranks as the third largest industry in the United States, and by the end of the second decade of the new millennium, employment experts predict it will be the top-ranked industry in the world.

The International School of Hospitality and Tourism Management (ISHTM) is located in the third-largest hospitality destination in the world. Combined with eastern Pennsylvania and Atlantic City, N.J., this geographic area becomes the largest hospitality destination in the world.

ISHTM is the oldest four-year school offering degrees in the area of hospitality management in the New York metropolitan region. Founded in 1942 as one of the University's original programs, it is the only program of its kind in New Jersey.

Since February 2015, ISHTM has been ranked sixth out of 300 hospitality programs nationally in TheBestSchools.org. Keeping company at the top are Cornell and Michigan State Universities and the University of Nevada at Las Vegas. Rankings for each school are based on criteria including academic quality, awards, reputation, rankings, facilities and internship opportunities. ISHTM was also rated by The Princeton Review's The Gourmet Report of Graduate Programs as one of the top four-year hospitality management programs in the United States.

The Master of Science degree in hospitality management studies, which consists of 33 credits, is structured to meet the educational needs of adult learners working as managers, entrepreneurs, educators or other professionals in the hospitality industry. It is designed to provide an educational alternative for working professionals with an academically rigorous, yet flexible, program of study that meets the requirements for a professional master's degree. For working adults seeking to upgrade their professional skills to enhance their careers, the degree program increases analytical, managerial and leadership competencies and provides graduates with the requisite preparation for career advancement in various hospitality-related professional areas.

The program offers students the opportunity to complete degree requirements by taking course work at the Metropolitan Campus, Teaneck, New Jersey; the Florham Campus, Madison, New Jersey; or by combining course work at various off-campus sites with selections from the broader array of courses that are regularly available at the University's campuses. Courses also are offered in Atlantic City, N.J.; in Parsippany, N.J., at the Wyndham Worldwide Corporation; in Jersey City, N.J.; and in West Windsor, N.J.

This program is offered under the auspices of the International School of Hospitality and Tourism Management, Anthony J. Petrocelli College of Continuing Studies, at the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey; various locations throughout New Jersey; at the FDU Vanouver Campus, British Columbia, Canada; and in Wroxton College, Oxfordshire, England.

Admission Requirements
Candidates for admission to the Master of Science in hospitality management studies degree program could be managers, business owners or educators or hold other professional positions related to the hospitality industry. The credentials required for admission as a matriculated student include the following:

1. A graduate application for admission and nonrefundable application fee.
2. A bachelor's degree from an accredited college or university with a minimum cumulative grade point ratio (CGPR) of 2.75. (Applicants with a CGPR of less than 2.75 may be admitted as prematriculated students on probation.)
3. Official transcripts from all colleges and universities previously attended.
4. English-language proficiency, both written and verbal.
5. Industry work experience preferred (applicants without industry work experience may be required to take foundation courses HRTM6100 Hospitality Operations Management and HRTM6200 Tourism Destination Management upon evaluation).
6. Personal statement of 400 words explaining reasons for pursuing hospitality graduate studies.
7. Personal interview with a graduate program adviser.

Additional classes may be required as a prerequisite for acceptance into the program. Applicants who are unable to provide official documents at the time of enrollment may register as nonmatriculated or nondegree students with the approval of a graduate faculty adviser.
# Hospitality Management Studies

## Prerequisite Program for Non-hospitality Majors

Foundation courses are required course work for students with non-hospitality degrees and limited or no prior hospitality work experience and are taken as free elective credit subjects. HRTM6100 Hospitality Operations Management and HRTM6200 Tourism Destination Management should not be taken by students with degrees in hospitality or tourism, or with prior hospitality work experience.

The below foundation courses are required for students with non-hospitality degrees and are taken as free elective credit subjects.

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM6100 Hospitality Operations Management*</td>
<td>3</td>
</tr>
<tr>
<td>HRTM6200 Tourism Destination Management*</td>
<td>3</td>
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</tbody>
</table>

## Requirements for the Master of Science Degree

1. Completion of a minimum of 33 graduate credits.
2. Cumulative grade point ratio of 3.00 for the degree program of study.
3. Cumulative grade point ratio of 3.00 in the core curriculum.
4. Minimum of 30 credits completed at Fairleigh Dickinson University.
5. Maximum of six years to complete the master’s degree requirements.

Up to three credits of graduate course work may be transferred from another college or university if completed within the six-year period. Courses submitted for transfer credit will be reviewed and evaluated by the director of the International School of Hospitality and Tourism Management. In assessing requests for transfer credit, the ISHTM faculty may require students to complete additional course work to update knowledge and skills to meet master's degree requirements.

## Course Requirements (33 credits)

### Required Hospitality Management Courses (9 credits)

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM7715 Special Project**</td>
<td>0</td>
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### Supporting Hospitality Management Courses (18 credits)

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM7708 Organizational Communication and Conflict Management</td>
<td>3</td>
</tr>
<tr>
<td>HRTM7710 Current Concepts in Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HRTM7713 Financial Management</td>
<td>3</td>
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<tr>
<td>HRTM7714 Advanced Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>HRTM7716 Service Management</td>
<td>3</td>
</tr>
<tr>
<td>HRTM7734 Global Marketing</td>
<td>3</td>
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</tbody>
</table>

Total 18

### Free Electives (6 credits)

This area is to be chosen by students with approval from an adviser.

<table>
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<tr>
<th>Course Requirement</th>
<th>Credits</th>
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Total 6

### Total Program (33 credits)

Graduate students have seven years to complete all of the course work requirements of the M.S. degree including the Special Project.

## Course Offerings

### Hospitality Management Studies International School of Hospitality and Tourism Management

### Foundation Courses for Non-hospitality Majors

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HRTM6100 Hospitality Operations Management</td>
<td>3</td>
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</table>

### Tourism Destination Management

This course must be taken in the first semester as the second of the free-elective course work subjects. Topics reviewed will include tourism, sales and marketing and human resource management. Case studies of various global destination marketing organizations will be analyzed and discussed. The term project will consist of planning and developing a tourism destination management project for a chosen city in Canada or in the United States.

### Required Hospitality Management Core Courses

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HRTM7715 Special Project**</td>
<td>3</td>
</tr>
</tbody>
</table>

### Research Methodology I

An introduction to graduate studies with heavy emphasis on referencing and citations in APA style and research. Quantitative and qualitative research studies are explored, discussed in depth and critiqued. A comprehensive research proposal is the goal of this course.

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<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM7752 Research Methodology II</td>
<td>3</td>
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</table>

### Research Methodology II

This is a required course designated to supplement HRTM7751 Research Methodology I that should be taken after 18 credits have been earned in the graduate program. Students will apply the research methodologies introduced in this course to create a special project research proposal. Prerequisite: HRTM7751 Research Methodology I.

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM7753 Graduate Capstone</td>
<td>3</td>
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</table>

This class is designed to be a capstone course to the master's degree in hospitality management studies program. Students will draw on all previously taken courses in a “real-world” application toward their particular area of interest. Prerequisite: to be taken after 25 credits have been completed.

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*Must be taken in the first semester.
**$500 recurring semester fee until completed.
***Taken after completing 24 credits.
*Must be taken in the first or second semester.
**Taken after completing 18 credits.
Hospitality Management Studies

Supporting Hospitality Management Courses

HRTM7708 3 Credits
Organizational Communication and Conflict Management
Overview of theories and models of communication, examination of barriers to effective communication and techniques for improving interpersonal, group and organizational communications. Conflict resolution is studied on the individual, group and organizational levels.

HRTM7710 3 Credits
Current Concepts in Leadership
Examines key theories of leadership and motivation as applied to hospitality operations; emphasis on analysis of leadership behaviors, managerial action and new servant-leadership strategies.

HRTM7713 3 Credits
Financial Management
Review of the current cost-control strategies used to manage food-service and lodging operations including all functional areas (food and labor costs, facility maintenance and engineering, marketing, etc.).

HRTM7714 3 Credits
Advanced Human Resource Management
Advanced human resources management for hospitality professionals. This course reviews the essential functions within human resources, including selection and retention, performance and evaluation systems, training and employee development, recruitment and succession planning, compensation, employee reward systems, employment-related laws, collective bargaining agreements, diversity and communication.

HRTM7716 3 Credits
Service Management
Review of current service theories and strategies used to provide total guest satisfaction in all customer contact areas; includes methods for measuring guest satisfaction and total quality management applications.

HRTM7734 3 Credits
Global Marketing
This course provides an overview of advanced marketing strategies oriented to North American and global markets. Cultural contexts will be explored to the extent of their impact on strategy, and best practices will be reviewed. The following topics will be reviewed: strategic planning, pricing practices, international marketing, global distribution systems and advertising.

Free Electives

HRTM7717 3 Credits
Discovering the World of Wine
This course provides an advanced analysis of various topics related to wine. These include history, production, service and distribution. Open to nonhospitality majors.

HRTM7718 0–3 Credits
Advanced Global Seminar
An eight-day trip to either Switzerland or Italy, which will include lectures by European university professors and hotel and restaurant managers on European management, environmental issues and culinary arts.

HRTM7722 3 Credits
Advanced Human Resource Management
This course is designed to develop critical-thinking, analysis, decision-making and management skills related to the needs of graduate students interested in a focus in hospitality human resource management. Group and individual projects, case studies and presentation technologies will be utilized.

HRTM7723 3 Credits
Hospitality Education Practicum
For students with education as their area of concentration in the M.S. in hospitality management studies program only. Students will shadow an International School of Hospitality and Tourism Management-certified hospitality educator (CHE) for a semester, and assist and observe the learning-facilitation process. A report of the experience and what learning-facilitation skills were observed and learned during the semester is due at the end of the term as well as a session-by-session journal kept by the student. Prerequisite: certified hospitality educator (CHE) training class.

HRTM7725 3 Credits
Curriculum and Instruction for the Hospitality Educator
The emphasis of this course will be on the relationship between models in all phases of the curriculum in the hotel, restaurant and tourism industry. Curriculum design, content and integration incorporated with technology will be the focus for the individual who will have a career in the hospitality field.

HRTM7726 3 Credits
Educational Organization for the Hospitality Educator
The emphasis of this course will be to explore, model and practice Multiple Intelligence Theory.

Learning Styles Theory, cooperative grouping, teaming techniques and other organizational patterns that will prepare the individual for presentations, teaching and working in the hospitality industry. The organizational models covered will serve as a guide for access to the hospitality industry in marketing, education and all the facets of hospitality careers.

HRTM7728 3 Credits
Graduate Internship
This practice training is set to provide students who do not have extensive professional experience in the area of practice chosen with some field experience. A letter from the employer must be provided. Prerequisite: completion of 27 credits in hospitality management.

HRTM7731 3 Credits
Seminar in Gaming/Casino Management
Practices and problems of casino management including security, control, entertainment, taxation, economic impact, mathematics of casino games, regulation and control and accounting are studied. Project is required.

HRTM7732 3 Credits
Hospitality Law — Legal Issues in Hospitality
Provides the student with a review of the laws applicable to the operation of hospitality enterprises. The course of study includes a review of contracts, the uniform commercial code, torts law, franchise law and a review of the current legislation and case law relative to hospitality enterprises.

HRTM7736 3 Credits
Accounting for Hospitality Managers and Administrators
This course focuses on the concepts and tools pertinent to making financial decisions in hospitality businesses. The student will acquire an understanding of financial statements, ratio analysis, pricing structure, cash management and working capital. In addition, students will develop the skills necessary to analyze and explain critical financial concepts, trends and results.

HRTM7737 3 Credits
Global Tourism Development
This course will examine global financial institutions’ perception of tourism as a foreign exchange generator for developing countries. Principles and philosophies of tourism and its impact on local cultures and economies will be examined. Nature tourism/ecotourism will also be examined.
Developing a Sustainability Mindset in Hospitality and Tourism

This course will introduce the three pillars of sustainability mindset: the whole systems perspective, the innovative thinking and the being orientation. Students will identify an area of personal passion that is relevant and significant to them and develop plans to take restorative action. This will give students an opportunity to convert the course experience into an opportunity to make a difference in the world.

Industrial/Organizational Psychology (M.A.)


International Business (M.B.A.)


Learning Disabilities (M.A.)

Management Information Systems (M.S.)
The graduate program in management information systems is designed for present and future managers and developers of organizational information systems. Relying on computers and telecommunications networks, these systems are a source of operational efficiency, managerial effectiveness and corporate strategic advantage. The program combines learning how to use and develop information system technology with instruction in business, management and organizations.

Classes normally are scheduled during the late afternoon and evening in order to meet the needs of currently employed students.

This program is offered under the auspices of the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Selected courses offered for credit toward the M.S. in management information systems also are available on the Florham Campus, Madison, New Jersey.

Admission Requirements
1. Graduation from an accredited college or university with a satisfactory academic record.
2. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years. The GRE may be waived if the applicant enrolls initially as a nonmatriculating student and completes 9 graduate credits in computer science with a minimum cumulative grade point ratio (CGPR) of 3.00 on a 4.00 scale and no grade below C or is a Fairleigh Dickinson University computer science graduate and has an undergraduate CGPR of 3.00 or is a non-Fairleigh Dickinson University computer science graduate and has an undergraduate CGPR of 3.50. This GRE-waiver policy is only applicable to applicants who graduated from a regionally accredited college or university in the United States. (The GRE requirement also is waived for applicants who have completed a master's degree.)

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Science Degree
1. Students must complete 30 credits of courses including topics in computer architecture, database systems, management, systems design, implementation and maintenance and electronic commerce.
2. Students who do not have an undergraduate degree in MIS or a cognate area, or demonstrably equivalent knowledge will take up to 12 credits of prerequisite courses. They must earn a cumulative grade point ratio of at least 2.75 for the prerequisite courses taken. Students who wish to be exempted from these courses must apply in writing to the school before the beginning of their first semester in the program.
3. Students must earn a cumulative grade point ratio of at least 2.75 for the 30 credits beyond the prerequisite courses.

Prerequisite Courses (12 credits)
The prerequisite courses for the M.S. in management information systems are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT5012</td>
<td>Financial Accounting: End-User Applications</td>
<td>2</td>
</tr>
<tr>
<td>CSCI5505</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5525</td>
<td>Introduction to Computer Science</td>
<td>3</td>
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<tr>
<td>ECN5012</td>
<td>Economic Analysis</td>
<td>2</td>
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<tr>
<td>MKTG5012</td>
<td>Marketing Principles</td>
<td>2</td>
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Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6603</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6625</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6720</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6758</td>
<td>Electronic Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7727</td>
<td>Development of MIS: Project Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7791</td>
<td>Information Systems for Competitive Advantage</td>
<td>3</td>
</tr>
</tbody>
</table>
Management Information Systems

Elective Courses (12 credits)
Students must select four electives from the list below. However, students have the option of registering for a 3-credit internship (which counts as one elective course) after completing 18 graduate credits. At the discretion of the school and consistent with the program objectives, other information-technology and business-oriented courses may be added to the elective list.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6638</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6733</td>
<td>Decision Support Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6734</td>
<td>Expert Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6735</td>
<td>Client-server Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6751</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6810</td>
<td>Java and the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6844</td>
<td>Programming for the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7728</td>
<td>Development of MIS 2: Systems Design, Implementation and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7781</td>
<td>Advanced Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7785</td>
<td>Distributed Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7795</td>
<td>Building Electronic Commerce Systems</td>
<td>3</td>
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</tbody>
</table>

Requirements for Certificate in Management Information Systems
18 credits (six courses) are to be chosen from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5525</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6623</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6720</td>
<td>Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6758</td>
<td>Electronic Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7727</td>
<td>Development of MIS 1: Project Management and Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7791</td>
<td>Information Systems for Competitive Advantage</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must satisfy the prerequisites of the courses that they will take.

Academic Credits: Courses with numbers 6000 or higher completed through this certificate program can be credited toward the M.S. in management information systems program. Other courses may be substituted with prior approval of the student's academic adviser.

Course Offerings
Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the school. See also “Course Offerings,” Computer Science, pages 98–105.

Management Information Systems
Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCI5525</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6623</td>
<td>Database Systems</td>
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<td>CSCI6720</td>
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<td>CSCI6731</td>
<td>Computer Networks</td>
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<tr>
<td>CSCI6758</td>
<td>Electronic Commerce</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7727</td>
<td>Development of MIS 1: Project Management and Systems Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Management Information Systems Certificate
The certificate program in management information systems provides individuals with a strong knowledge base to assist organizations in pursuing information technology-based competitive advantage in a rapidly changing global economy.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university with a satisfactory academic record.
use of systems development life cycle with prototyping. Systems documentation. Students will perform feasibility study and structured systems analysis of an online application system, as well as develop a moderate-size prototype for it. Project will use a computer-aided software engineering tool. Laboratory. Prerequisite: CSCI6720 Management Information Systems. Note: This course does not carry credit for computer science majors.

CSCI7728
3 Credits
Development of MIS 2: Systems Design, Implementation and Maintenance
Structured software design, structured programming and multilevel testing. Team implementation of an online system. Complete documentation package for the system will be prepared. Regression tests will be developed. Maintenance of the system, including its documentation, is to be performed by modifying one of its major functional capabilities. Laboratory. Prerequisite: CSCI7727 Development of MIS 1: Project Management and Systems Analysis.

CSCI7791
3 Credits
Information Systems for Competitive Advantage

Marketing (M.B.A.)
See Business, Marketing, page 64.

Mathematical Foundations (M.A.)

Medical Technology (M.S.)
This program is offered under the auspices of the Henry P. Becton School of Nursing and Allied Health, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. Graduation from an accredited college or university.
2. Grade point ratio (GPR) of 3.00 or higher.
3. Bachelor of Science in medical technology or in biology.
4. Twelve- to 15-month clinical training program in the undergraduate curriculum.
5. Registration as medical technologist of the American Society for Clinical Pathology and two years of clinical experience. (The latter may be completed concurrently with course work, in which case full matriculation for the degree is not permitted until the two full years of experience are presented.)
6. Undergraduate courses in statistics (inferential and descriptive).
7. Three letters of recommendation (academic/professional).
8. An essay on one of two topics: “Why did you choose graduate education?” or “What do you plan to do with your master of science degree?”

Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Science Degree
1. Satisfactory completion of a minimum of 35 credits consisting of 12 credits of biology/chemistry; 6 credits of computer science; 6 credits of administration or business courses; 5 credits of research, including a research project; and 6 credits of Clinical Practicum.
2. Upon admission to the M.S. in medical technology program, a student is required to meet with the associate director of allied health from the School of Nursing and Allied Health to discuss a program plan suitable to his or her interests.
### Required Courses

#### Biology/Chemistry

Select 12 credits from the following:

- BIOL6240, BIOL6241
  - Molecular Cell Biology (Lecture and Laboratory)...........4
- BIOL6705
  - Advances in Cell Biology..............................3
- BIOL6724
  - Human Genetics........................................3
- BIOL6733
  - Enzymology..............................................3
- BIOL6761, BIOL6661
  - Advanced Microbiology (Lecture and Laboratory).........4
- CHEM6252
  - Physical Chemistry......................................3
- CHEM6529
  - Microtoxicology and Biochemistry........................3
- CHEM6673
  - Physical Organic Chemistry............................3
- CHEM6781
  - Biochemistry............................................3

#### Computer Science

Select 6 credits from the following:

- CSC15505
  - Introduction to Computer Programming......................3
- CSC15525
  - Introduction to Computer Science..........................3
- CSC16720
  - Management Information Systems............................3
- NURS6640
  - Clinical Nursing Information Systems and Applications...3

#### Administration/Business

Select 6 credits from the following:

- MGMT5012
  - Foundations of Management................................2
- PADM6602
  - Budgeting and Finance.....................................3
- PADM6604
  - Human Resources Management.................................3
- PADM7731
  - Introduction to Health Systems and Policy..................3

### Introduction to Research

- NURS7701
  - Advanced Research and Evidence-based Practice...........3

### Research Seminar

- NURS7752
  - Master Project Seminar..................................2

### Medical Technology

#### Clinical Practicum (I, II, III)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDT6623</td>
<td>2</td>
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<tr>
<td>MEDT7725</td>
<td>2</td>
</tr>
<tr>
<td>MEDT7731</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>

### Course Offerings

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

For Biology, Chemistry, Computer Science, Engineering and Business courses see “Course Offerings” under the respective majors.

### Medical Technology

**Henry P. Becton School of Nursing and Allied Health**

- **BIOLO706**
  - **Immunology**
    - A study of the structure and function of the molecular and cellular components of the immune system, genetic bases of immune responses, normal and pathological responses, tumor immunology, transplantation and immunological techniques. Prerequisites: BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; BIOL2210 Genetics; BIOL2211 Laboratory: Genetics; CHEM2261 Organic Chemistry I; CHEM2265 Organic Chemistry Laboratory I; and CHEM3281 Biochemistry I.

- **BIOLO705**
  - **Advances in Cell Biology**
    - Molecular organization of cell, internal membranes and synthesis of macromolecules. The cell nucleus and cell division. Control of cell cycle. Cytoskeleton and cell-cell adhesion. The extra cellular matrix and signal transduction. *Fall, Spring*

- **BIOLO721**
  - **Advances in Molecular Genetics**
    - Classical mechanisms of recombination in prokaryote; transposition; genetic engineering; isolation and sequencing of DNA; restriction mapping; plasmid vectors; DNA cloning; molecular hybridization; regulation of genetic expression. Mutagenicity and carcinogenicity. Proteomic research: genome to proteome. Applications in research, medicine and agriculture. Prerequisites: BIOL2210, BIOL2211 Genetics. *Fall, Spring*

### BIOL7676

- **Microbiology and Infectious Diseases**

The biology of infectious agents, establishment of infectious diseases and strategies to study microbial and viral pathogens. The biological basis for antimicrobial and antiviral actions. Other topics emphasized are constitutive and induced defenses of the body, microbial subversion of host defenses and bacterial toxins.

- **MEDT6623**
  - **Clinical Practicum I**
    - Supervised experience in the clinical chemistry laboratory will provide students with the opportunity to analyze constituents from blood, urine, spinal fluid and other body fluids. Advanced instrumentation, preventative maintenance, quality-control and assay procedures, application of theoretical information and technical competence will be emphasized. Students also will obtain additional experience in specimen collection, processing and management.

- **MEDT7701**
  - **Clinical Practicum II**
    - Correlation of theoretical studies with current practice, automation, troubleshooting, problem-solving. National Committee on Clinical Laboratory Standards (NCCLS) and College of American Pathologists (CAP) guidelines, accreditation requirements and technical competence will be emphasized. Prerequisite: background in statistics.

- **MEDT7725**
  - **Clinical Practicum III**
    - Students will obtain practical experience in hematology, hemostasis and urine and body-fluid analysis under direct supervision at various clinical sites. Correlation of theoretical studies with current practice, automation, troubleshooting, problem-solving. National Committee on Clinical Laboratory Standards (NCCLS) and College of American Pathologists (CAP) guidelines, accreditation requirements and technical competence will be emphasized. Prerequisite: MEDT6623 Clinical Practicum I.
Nursing (M.S.N.)

The graduate curriculum in nursing is designed to serve those who desire to study advanced nursing rooted in explicit nursing knowledge as a guide to various roles.

The Master of Science in Nursing (M.S.N.) program prepares individuals as nurse practitioners for primary care, forensic nurses, nurse information systems specialists or as nurse educators and nurse administrators.

Advanced scholarship takes place within the context of nursing as a discipline and profession and is the guiding theme of all activities encompassed within the learning environment.

This program is offered under the auspices of the Henry P. Becton School of Nursing and Allied Health, University College: Arts • Sciences • Professional Studies, at the Metropolitan Campus, Teaneck, New Jersey, and the Florham Campus, Madison, New Jersey.

Admission Requirements

1. Graduation from an accredited B.S.N. program.
2. Undergraduate grade point ratio (GPR) of 3.00 or higher.
3. Registered nurse licensure in New Jersey.
4. Proficiency in spoken and written English.
5. Undergraduate prerequisites, including courses in health assessment, statistics and nursing research.
6. A personal interview may be required.
7. A minimum of one year of clinical nursing experience.
8. Two letters of recommendation.

Clinical Tracks

- Adult Gerontology Nurse Practitioner* (30 credits)
- Adult Gerontology Nurse Practitioner — Education or Administration Focus (39 credits)
- Adult Gerontology Nurse Practitioner — Forensic Focus (42 credits)
- Family Nurse Practitioner (37 credits)
- Family Psychiatric/Mental Health Nurse Practitioner* (42 credits)

Nonclinical Tracks

- Nursing Administration (33 credits)
- Nursing Education (33 credits)
- Nursing Information Systems (32 credits)

Post-Master’s Certificate Programs

Individuals holding an M.S.N. degree may earn a Post-M.S.N. graduate certificate in gerontology nurse practitioner, family nurse practitioner, family psychiatric/mental health nurse practitioner, nursing education and nursing information systems.

- Adult Gerontology Nurse Practitioner (24 credits)
- Family Nurse Practitioner (24 credits)
- Family Psychiatric/Mental Health Nurse Practitioner (24 credits)
- Nursing Education (24 credits)
- Nursing Administration (24 credits)
- Nursing Information Systems (24 credits)

Upon completion of the adult gerontology nurse practitioner, family nurse practitioner and family psychiatric/mental health nurse practitioner programs, the graduate is eligible for the Advanced Practice Nurse (APN) Certification Examination.

Adult Gerontology Nurse Practitioner

Graduates of the adult gerontology nurse practitioner program will be qualified to diagnose and treat clients with a wide variety of illnesses. Students graduate with an M.S.N. degree and are eligible to take the adult-gerontology nurse practitioner certification exam (AANP or ANCC) to become certified in the field.

Required Core Courses (8 credits)

NURS6600
Introduction to Advanced Nursing: Philosophies and Theories.................................3
NURS7701
Advanced Research and Evidence-based Practice......................................................3
NURS7752
Master Project Seminar.........................................................2

Advanced Nursing Practice Courses (22 credits)

NURS6615
Advanced Pharmacology.........................3
NURS6620
Advanced Health Assessment Theory.... 2
Nursing

NURS6621
Advanced Health Assessment Practicum........................................2
NURS6682
Primary Care of the Adult Gerontology I – Theory.........................3
NURS6683
Primary Care of the Adult Gerontology I – Practicum....................1
NURS7702
Advanced Pathophysiology..................................................3
NURS7735
Advanced Adult Gerontology II Theory.......................................3
NURS7736
Advanced Adult Gerontology II Practicum................................1
NURS7759
Primary Care of the Adult Gerontology III – Theory.....................3
NURS7760
Primary Care of the Adult Gerontology III – Practicum................1
Total........30

Role Specialization (9 credits)
Education courses: curriculum development; measurement and evaluation; educational theory/teaching strategies.
Administration courses: public and nonprofit management; human resources management; budgeting and finance.
Total........39

Adult Gerontology Nurse Practitioner — Education or Administration Focus
Graduates of the adult-gerontology nurse practitioner program will be qualified to diagnose and treat clients with a wide variety of illnesses. Students graduate with an advanced practice nursing (A.P.N.) degree and are eligible to take the adult nurse practitioner certification exam (AANP or ANCC) to become certified in the field. Students select a role specialization in education or administration (9 credits).

Required Core Courses (8 credits)
NURS6600
Introduction to Advanced Nursing:
Philostraties and Theories.................................3
NURS7701
Advanced Research and Evidence-based Practice....................3
NURS7752
Master Project Seminar........................................2

Advanced Nursing Practice Courses (22 credits)
NURS6615
Advanced Pharmacology...........................................3
NURS6620
Advanced Health Assessment Theory..............................2
NURS6621
Advanced Health Assessment Practicum..............................2
NURS6682
Primary Care of the Adult Gerontology I – Theory.........................3
NURS6683
Primary Care of the Adult Gerontology I – Practicum....................1
NURS7702
Advanced Pathophysiology..................................................3
NURS7735
Advanced Adult Gerontology II Theory.......................................3
NURS7736
Advanced Adult Gerontology II Practicum................................1
NURS7759
Primary Care of the Adult Gerontology III – Theory.....................3
NURS7760
Primary Care of the Adult Gerontology III – Practicum................1
Total........30

Forensic Nursing Specialization (12 credits)
Courses for the forensic nursing specialization will be selected each semester from the offerings of the School of Psychology and the School of Criminal Justice, Political Science and International Studies graduate courses in forensics, see below for examples.
CRIM6005
Advanced Criminological Theory..............................3
CRIM7020
Ethics, Politics and Justice..................................................3
CRIM7065
Crime, Victimology and Risk Reduction...............................3
PSY6231
Psychological Bases of Criminal Behavior...............................3
Total........42

Family Nurse Practitioner
Graduates of the family nurse practitioner program will be qualified to diagnose and treat clients across the lifespan with a wide variety of illnesses. Students graduate with an advanced practice nursing M.S.N. degree and are eligible to take the family nurse practitioner certification exam (AANP or ANCC) to become certified in the field.
**Required Core Courses (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NURS6600</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7752</td>
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<tr>
<td>Master Project Seminar</td>
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</tbody>
</table>

**Advanced Nursing Practice Courses (29 credits)**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>NURS6613</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS6620</td>
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<td>Advanced Health Assessment Theory</td>
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<td>Advanced Health Assessment Practicum</td>
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<tr>
<td>NURS6682</td>
<td>3</td>
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<tr>
<td>Primary Care of the Adult Gerontology I</td>
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<tr>
<td>NURS6683</td>
<td>3</td>
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<tr>
<td>Primary Care of the Adult Gerontology I – Practicum</td>
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</tr>
<tr>
<td>NURS7702</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS7735</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Adult Gerontology II Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS7736</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Adult Gerontology II Practicum</td>
<td>3</td>
</tr>
<tr>
<td>NURS7794</td>
<td>3</td>
</tr>
<tr>
<td>Family Care I Pediatrics</td>
<td>3</td>
</tr>
<tr>
<td>NURS7795</td>
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<tr>
<td>Family Primary Care I Practicum</td>
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<tr>
<td>NURS7810</td>
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<tr>
<td>Family Primary Care II Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS7811</td>
<td>3</td>
</tr>
<tr>
<td>Family Primary Care II Practicum</td>
<td>3</td>
</tr>
<tr>
<td>NURS7812</td>
<td>3</td>
</tr>
<tr>
<td>Family Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Family Psychiatric/Mental Health Nurse Practitioner**

As a family psychiatric/mental health nurse practitioner, graduates will be qualified to diagnose and treat clients with a wide variety of mental illnesses. Students graduate with an advanced practice nursing (A.P.N.) degree and are eligible to take the family psychiatric/mental health nurse practitioner exam (ANCC) to become certified in the field.

**Required Core Courses (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURS6600</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7752</td>
<td>2</td>
</tr>
<tr>
<td>Master Project Seminar</td>
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</table>

**Advanced Nursing Practice Courses (34 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURS6501</td>
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</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>NURS6502</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents</td>
<td>2</td>
</tr>
<tr>
<td>NURS6503</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Theory II: Adults</td>
<td>3</td>
</tr>
<tr>
<td>NURS6504</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Practicum II: Adults</td>
<td>2</td>
</tr>
<tr>
<td>NURS6505</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics</td>
<td>3</td>
</tr>
<tr>
<td>NURS6506</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics</td>
<td>2</td>
</tr>
<tr>
<td>NURS6615</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS6620</td>
<td>2</td>
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<tr>
<td>Advanced Health Assessment Theory</td>
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<tr>
<td>NURS6621</td>
<td>2</td>
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<tr>
<td>Advanced Health Assessment Practicum</td>
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<tr>
<td>NURS6701</td>
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<tr>
<td>Psychopharmacology</td>
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<tr>
<td>NURS7702</td>
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<td>Advanced Pathophysiology</td>
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<tr>
<td>NURS7812</td>
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<tr>
<td>Family Systems</td>
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<tr>
<td>NURS7815</td>
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<tr>
<td>Advanced Practice Nursing Role Development</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

**Nursing Administration**

The master of science in nursing administration program is designed to prepare leaders of administrative teams in hospitals, clinics or other health care organizations who will influence and implement institutional policies during this period of health care reform, restructuring and changes affecting patient outcomes. Students who completed another master’s degree cannot transfer any courses to complete this master’s degree.

**Required Courses**

**Nursing Core Courses (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NURS6600</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</td>
<td>3</td>
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<tr>
<td>Advanced Research and Evidence-based Practice</td>
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<tr>
<td>NURS7752</td>
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<tr>
<td>Master Project Seminar</td>
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**Advanced Nursing Courses (10 credits)**

<table>
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<tr>
<td>NURS7718</td>
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<tr>
<td>Administrative Practicum</td>
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</tr>
<tr>
<td>NURS7771</td>
<td>3</td>
</tr>
<tr>
<td>Seminar in Nursing Education</td>
<td>3</td>
</tr>
<tr>
<td>NURS8002</td>
<td>3</td>
</tr>
<tr>
<td>Health Care Delivery Systems and Public Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Nursing Information Systems Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>NURS6640</td>
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</tr>
<tr>
<td>Clinical Nursing Information Systems and Applications</td>
<td>3</td>
</tr>
<tr>
<td>NURS7741</td>
<td>3</td>
</tr>
<tr>
<td>Project Management</td>
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</tbody>
</table>

**Master of Administrative Science or M.B.A. Courses (9 credits)**

<table>
<thead>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MADS6600</td>
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</tr>
<tr>
<td>Theory and Practice of Administration</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MGMT3012</td>
<td>2</td>
</tr>
<tr>
<td>Foundations of Management</td>
<td>2</td>
</tr>
<tr>
<td>MADS6601</td>
<td>3</td>
</tr>
<tr>
<td>Financial Administration</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>FIN5012</td>
<td>2</td>
</tr>
<tr>
<td>Principles of Finance</td>
<td>2</td>
</tr>
<tr>
<td>MADS6606</td>
<td>3</td>
</tr>
<tr>
<td>Administrative Leadership in Complex Organizations</td>
<td>3</td>
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<tr>
<td>or</td>
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<tr>
<td>MGMT6012</td>
<td>2</td>
</tr>
<tr>
<td>Organizational Behavior and Leadership</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>
Nursing Education
The nurse educator M.S.N. program prepares nurses as teachers in collegiate programs, in associate or bachelor's degree nursing education. Students acquire knowledge and skills in teaching that enable them to work effectively with students, patients, and consumers. Students complete a preceptored practicum that is individually tailored to student goals and exposes them to all aspects of the faculty academic and clinical teaching role.

Required Core Courses (8 credits)
NURS6600
Introduction to Advanced Nursing: Philosophies and Theories.......... 3
NURS7701
Advanced Research and Evidence-based Practice............... 3
NURS7752
Master Project Seminar................. 2

Advanced Nursing Education Courses (25 credits)
NURS6615
Advanced Pharmacology.................. 3
NURS7702
Advanced Pathophysiology............... 3
NURS7705
Educational and Learning Theory........ 3
NURS7706
Teaching Strategies for the Learning Environment................. 3
NURS7715
Curriculum Development and Theory........................................ 3
NURS7714
Outcomes Assessment...................... 3
NURS7717
Teaching Practicum.......................... 4
NURS7771
Seminar in Nursing Education............. 3
Total.................. 33

Nursing Information Systems
The nursing information systems specialist is able to integrate computer science, information science and nursing science to assist in the management and process of nursing data, and knowledge and support evidence-based practice and to improve the delivery of nursing care.

Required Core Courses (8 credits)
NURS6600
Introduction to Advanced Nursing: Philosophies and Theories........ 3
NURS7701
Advanced Research and Evidence-based Practice.................. 3
NURS7752
Master Project Seminar.................. 2

Nursing Information Systems Specialization (12 credits)
NURS6640
Clinical Nursing Information Systems and Applications.............. 3
NURS7740
Nursing Informatics Role................ 3
NURS7741
Project Management...................... 5
NURS7745
Practicum in Nursing Informatics.................. 3

Support Courses (9 credits)
Select three courses from the following:
- CSCI5505
  Introduction to Computer Programming.................. 3
- CSCI5525
  Introduction to Computer Science.................. 3
- CSCI6720
  Management Information Systems.................. 3
- CSCI6733
  Decision Support Systems.................. 3

Elective Courses (3 credits)
Select one course from the following:
- NURS7705
  Educational and Learning Theory.................. 3
- NURS7746
  Nursing Informatics Practicum II.................. 3
Total.................. 32

Post-Master's Certificate Program
The Post-Master's Certificate Program allows nurses who have a master's degree in nursing from an NLN/CCNE-accredited program to pursue further post-graduate study in APRN (Advanced Practice Nursing) in adult gerontology, family, family psychiatric/mental health, forensic and nonclinical areas in education and nursing information systems.

Admissions Criteria
1. Master's degree in nursing from an NLN/CCNE-accredited program.
2. Grade point ratio (GPR) of 3.00.
3. Current New Jersey registered nurse (RN) license or eligibility for RN licensure in New Jersey.

*Prerequisite is CSCI5525 Introduction to Computer Science.
**Prerequisite is CSCI6720 Management Information Systems.

Adult Gerontology Nurse Practitioner Post-Master's Certificate
The adult gerontology nurse practitioner post-master's certificate program includes didactic and clinical experiences that focus on the primary-care needs of the adult-gerontology population.

Required Courses (24 credits)
NURS6615
Advanced Pharmacology.................. 3
NURS6620
Advanced Health Assessment Theory**................. 2
NURS6621
Advanced Health Assessment Practicum**................. 2
NURS6682
Primary Care of the Adult Gerontology I Theory........... 3
NURS6683
Primary Care of the Adult Gerontology I Practicum........ 1
NURS7702
Advanced Pathophysiology.................. 3
NURS7735
Advanced Adult Gerontology II Theory................. 3
NURS7736
Advanced Adult Gerontology II Practicum................. 1
NURS7759
Primary Care of the Adult Gerontology III Theory........ 3
NURS7760
Primary Care of the Adult Gerontology III Practicum........ 1
NURS7813
APN Practicum................................. 2–10
Total credits required are determined on an individual basis after gap analysis of prior education and certification.
Total clinical hours: 550 hours

*NURS6615 Advanced Pharmacology must have been taken within three years of entry into the program.
**NURS6620 Advanced Health Assessment Theory, NURS6621 Advanced Health Assessment Practicum and NURS7702 Advanced Pathophysiology must have been completed within five years of entry into the program.
Family Nurse Practitioner Post-Master’s Certificate

The family nurse practitioner post-master’s certificate program includes didactic and clinical experiences that focus on the primary-care needs of families and communities.

Designed for M.S.N.-prepared nurses who are interested in becoming nurse practitioners, graduates are eligible for national certification.

Required Courses (24 credits)

NURS6615 Advanced Pharmacology*.................... 3  
NURS6620 Advanced Health Assessment Theory**..................... 2  
NURS6621 Advanced Health Assessment Practicum**..................... 2  
NURS6682 Primary Care of the Adult Gerontology I Theory...................... 3  
NURS6683 Primary Care of the Adult Gerontology I Practicum.................... 1  
NURS7702 Advanced Pathophysiology**..................... 3  
NURS7735 Advanced Adult Gerontology II Theory......................... 3  
NURS7736 Advanced Adult Gerontology II Practicum...................... 1  
NURS7794 Family Primary Care I Pediatrics..................... 3  
NURS7795 Family Primary Care I Practicum.................... 1  
NURS7810 Family Primary Care II Theory..................... 3  
NURS7811 Family Primary Care II Practicum.................... 1  
NURS7812 Family Systems.......................... 3  
NURS7813 APN Practicum.......................... 2–10  
Total clinical hours: 640 hours to be completed in the program.

Family Psychiatric/Mental Health Nurse Practitioner Post-Master’s Certificate

Upon completion of the family psychiatric and mental health advanced practice certificate program, students are eligible for family psychiatric and mental health nurse practitioner certification through the American Nurses Credentialing Center (ANCC).

Required Courses (24 credits)

NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents.......................... 3  
NURS6502 Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents.......................... 2  
NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults.......................... 3  
NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum II: Adults.......................... 2  
NURS6505 Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics.......................... 3  
NURS6506 Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics.......................... 2  
NURS6701 Psychopharmacology.......................... 3  
NURS7812 Family Systems.......................... 3  
NURS7815 Advanced Practice Nursing Role Development.......................... 3  
Total credits required are determined on an individual basis after gap analysis of prior education and certification.

Accelerated D.N.P. Programs

The Henry P. Becton School of Nursing and Allied Health offers the following accelerated D.N.P. programs:

- Pre-baccalaureate Nursing to D.N.P.
  (109 credits and 1,565 clinical hours)
- Post-baccalaureate Nursing to D.N.P.
  (58 credits and 1,065 clinical hours)
- Postmaster’s D.N.P. (36 credits and 500 residency hours)

For information go to Accelerated D.N.P. Programs, pages 180–181.

For Information

For more information, contact Dr. Boas Yu, associate director of graduate nursing programs, at (201) 692-2881 or boas_yu@fdu.edu.

Course Offerings

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

Nursing

Henry P. Becton School of Nursing and Allied Health

NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents

The focus of this course is on children and adolescents with acute and chronic mental illnesses. Interventions emphasize music therapy; play therapy; cognitive-behavior therapy; individual, family and group therapy; and residential, day and hospital treatment. Biologically based management is also addressed. Assessments and differential diagnoses are emphasized and the use of reliable and valid measurement instruments is taught. Knowledge from nursing science, psychotherapies, biological therapies and evidence-based research provide the basis for culturally competent psychiatric advance-practice nursing care to this population.

Prerequisites: NURS6615 Advanced Pharmacology.
NURS6620 Advanced Health Assessment Theory and NURS6621 Advanced Health Assessment Practicum. Corequisite: NURS6502

*NURS6615 Advanced Pharmacology must have been taken within three years of entry into the program.
**NURS6620 Advanced Health Assessment Theory, NURS6621 Advanced Health Assessment Practicum and NURS7702 Advanced Pathophysiology must have been completed within five years of entry into the program.
Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents.

NURS6502 2 Credits
Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents
Students will apply knowledge from NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents in providing direct care in the clinical arena to children and adolescents with acute and chronic mental illnesses. Students will carry a caseload of patients under the direct guidance of an experienced preceptor who will be certified as a family psychiatric nurse practitioner or child and adolescent psychiatrist. Weekly supervision sessions with faculty enhance students’ developing clinical competence. care to this population. Prerequisites: NURS6615 Advanced Pharmacology, NURS6620 Advanced Health Assessment Theory and NURS6621 Advanced Health Assessment Practicum. Corequisite: NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents.

NURS6503 3 Credits
Advanced Psychiatric/Mental Health Nursing Theory II: Adults
The focus of this course is on adults with acute and chronic mental illnesses. Interventions emphasize one-on-one interaction from a variety of therapeutic modalities such as short-term psychotherapy, biologically based management and cognitive-behavior therapy. Group and family therapy are explored as treatment modalities. Assessments and differential diagnoses are emphasized and the use of reliable and valid measurement instruments is addressed. Knowledge from nursing science; individual, group and family theory; and evidence-based research provide the basis for culturally competent psychiatric advance-practice nursing care to this adult population. Assessments and differential diagnoses are emphasized and the use of reliable and valid measurement instruments is addressed. Knowledge from nursing science; individual, group and family theory; and evidence-based research provide the basis for culturally competent psychiatric advance-practice nursing care to this adult population. Prerequisites: NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents; NURS6502 Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents; and NURS6701 Psychopharmacology. Corequisite: NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum II: Adults.

NURS6504 2 Credits
Advanced Psychiatric/Mental Health Nursing Practicum II: Adults
Students will apply knowledge from NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults in providing direct care in the clinical arena to adults with acute and chronic mental illnesses. Students will carry a caseload of patients under the direct guidance of an experienced preceptor who will be certified as a nurse practitioner or psychiatrist. Weekly supervision sessions with faculty enhance students’ developing clinical competence. Prerequisites: NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents; NURS6502 Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents; NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults; and NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum II: Adults. Corequisite: NURS6505 Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics.

NURS6505 3 Credits
Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics
The focus of this course is on geriatric patients with acute and chronic mental illnesses. Psychotherapeutic and biologically based therapies that are unique to this population will be addressed. Assessments and differential diagnoses are emphasized and the use of reliable and valid measurement instruments is taught. Knowledge from nursing science; individual, group and family theory; and evidence-based research provide the basis for culturally competent psychiatric advance-practice nursing care to this geriatric population. Prerequisites: NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents; NURS6502 Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents; NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults; and NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum II: Adults. Corequisite: NURS6506 Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics.

NURS6506 2 Credits
Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics
Students will apply knowledge from NURS6505 Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics in providing direct care in the clinical arena to geriatric patients with acute and chronic mental illnesses. Students will carry a caseload of patients under the direct guidance of an experienced preceptor who will be certified as a nurse practitioner or psychiatrist. Weekly supervision sessions with faculty enhance students’ developing clinical competence. Prerequisites: NURS6501 Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents; NURS6502 Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents; NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults; and NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum II: Adults. Corequisite: NURS6505 Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics.

NURS6600 3 Credits
Introduction to Advanced Nursing: Philosophies and Theories
Philosophies of science, nursing theories and conceptual models will be analyzed as guides to nursing education, administration, research and practice.

NURS6615 3 Credits
Advanced Pharmacology
Examines legal implications, pharmacologic action and the monitoring of drug-therapy responses of clients needing various classifications of drugs in the management of health conditions. Prerequisites: NURS6620 Advanced Health Assessment Theory, NURS6621 Advanced Health Assessment Practicum and NURS7702 Advanced Pathophysiology.

NURS6620 2 Credits
Advanced Health Assessment Theory
This course will focus on the comprehensive health assessment of culturally diverse adult clients. Using a system’s approach, the student will synthesize and analyze data relative to the health promotion of the adult population. The course will address the health-assessment needs of select populations across the life span of the adult. Ethical and legal implications of health assessment will be addressed. Prerequisite: NURS7702 Advanced Pathophysiology. Corequisite: NURS6621 Advanced Health Assessment Practicum.

NURS6621 2 Credits
Advanced Health Assessment Practicum
Utilizing theoretical foundations, the student will perform a comprehensive health assessment across the adult life cycle. The student’s clinical skills will be validated by faculty and expert preceptor(s) in supervised clinical settings that provide the student with opportunities to practice cognitive and psychomotor skills necessary to begin the advanced practice role. Prerequisite: NURS7702 Advanced Pathophysiology. Corequisite: NURS6620 Advanced Health Assessment Theory.

NURS6640 3 Credits
Clinical Nursing Information Systems and Applications
This course examines the role and practice of informatics nurse specialists, which includes studying the development, implementation and evaluation of applications, tools, processes and systems that assist nurses with the management of data in taking care of patients and supporting the practice of nursing. The course focuses on assessing, adapting, integrating and evaluating informatic applications to nursing in both the clinical and nonclinical domain.
NURS6682
3 Credits
Primary Care of the Adult Gerontology I – Theory
This course will introduce the student to the health care management of adult-geriatric clients in the primary-care setting, utilizing Quality and Safety Education For Nurses (QSEN) in developing competencies in the knowledge, skills and attitudes necessary to continuously improve outcomes within the primary-care setting. Students will identify and treat common deviations in health. Using a systems approach, this course will examine those alterations in health which are frequently encountered and managed by adult nurse practitioners in primary health care settings. All aspects of the health maintenance and disease management are emphasized, including but not limited to, disease-lifestyle modifications, nutritional needs, pharmacotherapy, client education, rehabilitation and evaluation of treatment plans.

NURS6683
4 Credit
Primary Care of the Adult Gerontology I Practicum
This course introduces the student to clinical practice as an advanced practice nurse. Students will work with an approved preceptor in an actual clinical setting where they will begin to deliver primary care to adult-gerontology patients. They are expected to apply theory learned in didactic course to patient-management problems. Students are expected to initiate care which involves diagnosis, treatment and management of common illness and deviations from health for an adult and aged population. Students are also expected to promote health maintenance for culturally diverse populations ranging from late adolescence to geriatric clients.

NURS6701
3 Credits
Psychopharmacology
This course provides students with a foundation in providing pharmacotherapy for clients with psychiatric disorders. The neurobiological changes underlying psychopathology are emphasized as the basis for prescribing decisions and management. The central importance of caring within a therapeutic rapport provides the philosophic stance from which students are encouraged to develop their unique prescribing practice. Prerequisites: NURS6615 Advanced Pharmacology, NURS6620 Advanced Health Assessment Theory, NURS6621 Advanced Health Assessment Practicum and NURS7702 Advanced Pathophysiology.

NURS6702
3 Credits
Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses
This course assists students to become proficient in mental health and psychiatric assessment consistent with advanced nursing practice for health promotion, restoration and rehabilitation. Students practice advanced mental health evaluation techniques including individual assessments, laboratory tests, diagnostic studies and interpretation and documentation of the findings. Differential diagnosis from/with common physical health deviations is a hallmark of the course. Corequisites: NURS6703 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses Practicum.

NURS6703
2 Credits
Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses Practicum
The student applies theoretical foundations by conducting comprehensive mental health assessments of adults. Clinical practice is provided under the supervision of faculty and expert preceptor(s) who validate the student’s competence to begin advanced practice in psychiatric nursing. Prerequisites: NURS6613 Advanced Pharmacology, NURS6620 Advanced Health Assessment Theory and NURS6621 Advanced Health Assessment Practicum. Corequisite: NURS6702 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses.

NURS6801
3 Credits
Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics
This course is focused on implementing principles for psychiatric advanced practice nursing. Knowledge from nursing science and related fields is used to assess, diagnose and treat clients with psychiatric/mental health problems. Wellness and the promotion of mental health, treatment of clients with acute mental illnesses and the prevention of further psychiatric morbidity or disability are emphasized. The context of caring is explored relative to client circumstances, resources and issues in the delivery of mental health services to individuals. Nursing research findings are applied to emphasize the link between psychotherapeutic process and outcomes which form the evidence base for psychiatric health care. Prerequisites: NURS6702 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses, NURS6703 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses Practicum and NURS7702 Advanced Pathophysiology. Corequisites: NURS6701 Psychopharmacology and NURS6802 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics Practicum.

NURS6802
2 Credits
Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics Practicum
Students apply knowledge from NURS6801 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics to the care of acute and chronically mentally ill adults in varied psychiatric settings with the guidance of an individual preceptor in the clinical agency. Weekly supervised sessions with course faculty enhance students’ developing clinical competency by encouraging self-reflection, refinement of interviewing skills, integrating primary-care concern and collaborating with colleagues. Therapeutic use of self is an essential and integral aspect of this course. Prerequisites: NURS6702 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses, NURS6703 Advanced Psychiatric/Mental Health Nursing I: Assessment and Differential Diagnoses Practicum and NURS7702 Advanced Pathophysiology. Corequisites: NURS6701 Psychopharmacology and NURS6801 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics.

NURS6810
3 Credits
Advanced Psychiatric/Mental Health Nursing III: Group and Family Therapeutics
This course is focused on principles used by psychiatric advanced practice nurses to optimize group and family functioning. Knowledge from nursing science, group and family theories and research is synthesized to provide an evidence base for psychiatric advanced practice nursing. Special emphasis is placed on the ethnically diverse and culturally diverse emotional processes experienced by groups or families. Students engage client groups and families in therapeutic relationships to change biological, psychological and/or social functioning in order to promote optimal health and/or the fullest realization of human potential. Prerequisites: NURS6701 Psychopharmacology, NURS6801 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics and NURS6802 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics Practicum. Corequisite: NURS6811 Advanced Psychiatric/Mental Health Nursing III: Group and Family Therapeutics Practicum.

NURS6811
2 Credits
Advanced Psychiatric/Mental Health Nursing III: Group and Family Therapeutics Practicum
Students apply knowledge from NURS6810 Advanced Psychiatric/Mental Health Nursing III: Group and Family Therapeutics to the care of groups and families experiencing the challenge of mental illness and dysfunction. Stu-
students continue to carry a caseload of individual adult clients under the guidance of an experienced preceptor(s) in one or more clinical agencies. Weekly supervised sessions with course faculty enhance students' developing clinical competence by facilitating consultation with advanced practice nurse peers and experts in related disciplines. Dealing with psychiatric emergencies, enhancing cultural competence and integrating theoretical formulations are imperatives in this course. Prerequisites: NURS6801 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics and NURS6802 Advanced Psychiatric/Mental Health Nursing II: Individual Therapeutics Practicum. Corequisite: NURS6810 Advanced Psychiatric/Mental Health Nursing III: Group and Family Therapeutics.

NURS7701 3 Credits Advanced Research and Evidence-based Practice
The advancement of nursing knowledge through development and research is explored. Critical analysis of selected concepts using nursing and related literature is conducted and applied to the research process. Quantitative statistical procedures and qualitative methods are examined for their appropriate use in research design. Nursing research is evaluated for utilization in advanced practice cognizant of ethical issues. Prerequisite/Corequisite: NURS6600 Introduction to Advanced Nursing: Philosophies and Theories.

NURS7702 3 Credits Advanced Pathophysiology
This course critically analyzes theories and research from the biological and social sciences and the humanities which explain/predict human responses to health and illness. The focus of this course is interventions that promote health, prevent disease, ameliorate pathological responses and foster quality of life.

NURS7703 3 Credits Advanced Educator Role Seminar I
This course provides the opportunity for students to discuss pertinent issues, challenges and innovations in nursing education in the 21st century. The course also provides a forum for discussion of mentoring activities and exploration of the teaching associate (TA) role. Students will be supported during initial assimilation into the TA role. Prerequisite: NURS7703 Advanced Educator Role Seminar I.

NURS7705 3 Credits Educational and Learning Theory
This course provides an overview of philosophies of education and examines teaching-learning processes for the nurse as educator. Emphasis is placed on the adult learner. Components of critical thinking and contexts for learning are explored. The bases for educational evaluation are appraised. Selected theories from the social sciences are analyzed for appropriateness to nursing education and advanced practice.

NURS7706 3 Credits Teaching Strategies for the Learning Environment
To facilitate active learning, the educator must be able to identify the needs of the learner, as well as strategies that will involve the learner as a lively participant in the learning environment. In this course, traditional and contemporary teaching approaches will be evaluated for use with diverse populations of learners in various settings: classroom, community, health care facilities and clients' homes.

NURS7708 0 Credits Advanced Educator Role Seminar III
This seminar follows a cohort model and must be taken in sequence. It continues to provide the opportunity for students to discuss pertinent issues, challenges and innovations in nursing education in the 21st century. The course also provides a forum for discussion of mentoring activities and exploration of the teaching role. Students will continue to develop their teaching portfolios. Prerequisites: NURS7703 Advanced Educator Role Seminar I and NURS7704 Advanced Educator Role Seminar II.

NURS7709 0 Credits Advanced Educator Role Seminar IV
This seminar follows a cohort model and must be taken in sequence. It continues to provide the opportunity for students to discuss pertinent issues, challenges and innovations in nursing education in the 21st century. The course also provides a forum for discussion of mentoring activities and exploration of the teaching role. Students will refine and complete their teaching portfolios. Prerequisites: NURS7703 Advanced Educator Role Seminar I, NURS7704 Advanced Educator Role Seminar II and NURS7708 Advanced Educator Role Seminar III.

NURS7713 3 Credits Curriculum Development and Theory
This course provides opportunities for learners to explore all that is encompassed by the educational term curriculum. From the initial work by Ralph Tyler to current theories and frameworks, learners will be guided through the application of these essentials to the creation of dynamic curricula. The major project for this course is the development of curricula for use in academic settings, staff development in clinical settings or client education necessary to improve or restore health. Corequisite: NURS7705 Educational and Learning Theory. Fall, Spring

NURS7714 3 Credits Outcomes Assessment
This course provides opportunities for learners to explore methods of evaluation for use in teaching settings. Traditional and contemporary teaching approaches will be evaluated for use with identified populations of learners. The learner will identify, analyze and apply general theories of evaluation specific to individual performance, curriculum and staff development and continuing-education programs in nursing. Discussion of the process of accreditation and its role for quality assurance within nursing education will be highlighted. Prerequisites: NURS7705 Educational and Learning Theory and NURS7713 Curriculum Development and Theory. Corequisite: NURS7706 Teaching Strategies for the Learning Environment.

NURS7717 4 Credits Teaching Practicum
This is the capstone course in the nursing education track. Learners will identify a nurse educator they would like to work with for the semester. During this experience, learners will participate and assume many responsibilities associated with being an educator: teaching didactic, clinical in various settings, committee work and evaluation. Learners will meet every other week for a seminar with their peers to share experiences.

NURS7718 4 Credits Administrative Practicum
This course allows students to apply administrative theories, research and planning in the role of the nurse administrator. Students will be placed with a nurse administrator preceptor in a nursing or health facility. The students are expected to participate in multiple aspects of the nurse administrator role. Prerequisites: NURS6600 Introduction to Advanced Nursing: Philosophies and Theories, NURS6640 Clinical Nursing Information Systems and Applications, NURS7701 Advanced Research and Evidence-
Nursing Informatics Practicum II
This practicum builds upon the knowledge and skills of informatics that nurse specialists acquired in NURS7745 Practicum in Nursing Informatics. Students will enhance their practical experience in selected agencies. The practicum will allow students to further develop skills necessary for system implementation in nursing and health care applications.

NURS7752
2 Credits
Master Project Seminar
Learners further develop the evidence-based project proposal started in NURS7701 Advanced Research and Evidence-based Practice. In addition, learners will have hands-on experience with a statistical analysis software (e.g., SPSS) using “dummy” data. Learners will meet periodically with their classmates and their mentors to complete the implementation and evaluation phases of the project.

NURS7757
3 Credits
Primary Care III
Expanding on the principles of assessment, diagnosis and therapeutics, this course prepares an adult-gerontology nurse practitioner to formulate differential diagnoses based on the presenting client’s chief complaint. Approached in this manner, the practitioner is prepared for the reality of health care management. The entire course is taught using case studies and anecdotes from actual clinical experiences and moves the student through symptom analysis, physical findings, diagnostic workup, management and follow-up. Prerequisite: NURS7735 Advanced Adult Gerontology Theory. Corequisite: NURS7756 Primary Care III Practicum.

NURS7758
1 Credit
Primary Care III Practicum
This clinical course requires that the student practice 16-hour weeks for 16 weeks in a primary-care facility that serves a medically diverse population. Students will practice more autonomously. Prerequisite: NURS7735 Advanced Adult Gerontology Theory. Corequisite: NURS7760 Primary Care of the Adult Gerontology III Practicum.

NURS7759
3 Credits
Primary Care of the Adult Gerontology III – Theory
This course will continue to present the principles of disease management of adult-gerontology clients in the primary-care setting. Role development of the advanced practice nurse will be integrated throughout the course. Students are expected to apply the QSEN (Quality and Safety Education for Nurses) principles and competencies in their role as advanced practice nurses in the primary-care setting. Multi-dimensions of disease states frequently encountered and competently managed by advanced practice nurses will be discussed. Prerequisite: NURS7735 Primary Care of the Adult Gerontology II – Theory. Corequisite: NURS7759 Primary Care of the Adult Gerontology III Practicum.

NURS7760
1 Credit
Primary Care of the Adult Gerontology III Practicum
Students are expected to apply their advanced practice nursing role in conducting health promotion, assessing, making clinical decisions and managing the care of adult-gerontology clients in consultation with appropriate providers in the clinical setting. Preceptorships will be arranged in the varied adult-gerontology-focused setting. Prerequisite: NURS7736 Primary Care of the Adult Gerontology II Practicum. Corequisite: NURS7759 Primary Care of the Adult Gerontology III – Theory.

NURS7762
3 Credits
Forensic Science Technology
This course provides a broad overview of scientific crime detection and more detailed discussion of techniques for case management and documentation, the concept of proof, the impact of emergent technology on the investigative process, interacting with victims and witnesses and interviewing suspects. The process of forensic-case management and the role of the forensic nurse will be examined. Particular emphasis may be placed on the investigation of particular types of crimes, for example, homicides, sex offenses, child abuse and hate crimes.

NURS7763
3 Credits
Criminal Law and Forensics
This course studies how social diversity and inequality shape the way criminal behavior is defined and controlled through the application of the criminal law and criminal justice system. Attention is given to the disparity of criminal offending, victimization and criminal-justice processing across demographic groups as well as explanations for observed disparities. The
course also explores subordinate group members as criminal justice professionals.

NURS7765
3 Credits
Violence, Ethics and Human Rights Issues
This course provides an introduction to psychological issues relating to understanding, assessing and managing criminal and other abnormal behavior. An overview of mental disorders and their relationship to criminality and violence is provided. Topics include sanity, psychopathy, criminal profiling, serial killers, stalking, women who kill and threat assessment.

NURS7771
3 Credits
Seminar in Nursing Education
This course provides the opportunity for the students to discuss pertinent issues, challenges and innovations in nursing education in the 21st century. Discussion will be guided by faculty mentors. Prerequisite: NURS7717 Teaching Practicum.

NURS7794
3 Credits
Family Primary Care I Pediatrics
This course is designed to introduce the family nurse practitioner student to the primary care of infants, children and adolescents. Course content includes information related to principles of health promotion, disease prevention and assessment and management of common primary health care problems in diverse pediatric populations. Content is presented within a family-centered and developmental perspective and includes content related to advanced pathophysiology, research and psychosocial factors. Cultural factors as they relate to health care needs will be examined.

NURS7795
1 Credit
Family Primary Care I Practicum
This course provides students with clinical experience as primary health care givers in various clinical settings under the supervision of faculty and preceptors in the nursing management of infants, children, adolescents and families. In this practicum, students apply advanced knowledge of normal physiology, pathophysiology and psychosocial concepts of nursing care of children. 120 hours of clinical required.

NURS7810
3 Credits
Family Primary Care II Theory
This course is designed to introduce the family nurse practitioner student to the health care issues of women. Critical analysis of clinical strategies and interventions in health promotion, health maintenance and disease prevention, routine prenatal care in uncomplicated pregnancies and assessment and management of common health problems in the primary care of women will be studied. This course builds upon the knowledge of the health care of women in the primary care of adult’s theory and practicum courses. Content related to principles of pharmacology, pathophysiology and cultural issues is integrated throughout the course. Health-education methodologies and counseling strategies pertinent to women will be explored and intervention strategies developed. Focus is on health promotion, disease prevention and the clinical management and referral of common, recurring health problems of women.

NURS7811
1 Credit
Family Primary Care II Practicum
In the women’s health course practicum, students apply advanced knowledge of normal physiology, pathophysiology and psychosocial concepts to nursing care of women across the life span. This practicum includes specific components of advanced nursing practice from self-directed clinical experience with expert professional nurse/physician preceptors in a variety of settings. Students must complete 120 preceptored clinical hours in the primary care of women.

NURS7812
3 Credits
Family Systems
The purpose of this course is to broaden the students’ understanding of the family unit from a systems perspective. Characteristics and functions of families and their relationship to health and illness will be analyzed. Major theoretical perspectives affecting family functioning will be evaluated.

NURS7813
3 Credits
APN Practicum
This course is a preceptored Advanced Practice Nurse (APN) practicum in the primary care of individuals and families. Completion of the practicum is required in order to be eligible for certification as an APN. Prerequisites: all primary care courses.

NURS7815
3 Credits
Advanced Practice Nursing Role Development
This course assists the students in preparing for the role of advanced practice nurse. Students will focus on the role from a historical perspective and evaluate social, economic and political factors that have contributed to its evolution. Variables that contribute to the practice environment are explored. Ethical, legal and business acumen are examined. Prerequisites: All primary-care courses.

For course description of CSCI-prefixed courses, see “Course Offerings,” pages 99–105 and 166–167. For description of EENG7704 Computer-based Instrumentation, see page 145.

Nursing Practice

Nursing Practice (D.N.P.)

The Doctor of Nursing Practice (D.N.P.) degree program educates nurses for the highest level of clinically expert practice, including sophisticated diagnostic and treatment competencies. These competencies, combined with a focus on health promotion, disease prevention and health education, prepare D.N.P.s for leadership-practice roles on the front line of their profession. Recognizing that advanced-practice preparation requires education at the doctoral level, this program provides intra- and interdisciplinary collaboration in both the education and practice settings.

The 36-credit program offers clinical leadership and organizational leadership tracks. The clinical leadership track prepares advanced practice nurses (APNs) for leadership in practice and the organizational leadership track prepares graduates for leadership positions in organizational systems. The curriculum consists of 24 credits of core requirements and 12 credits of specialty courses. The residency requirement of 500 hours offers students the opportunity to work closely with mentors on projects that will demonstrate expanded practice and mastery of D.N.P. competencies. Full-time students may complete the program in two years; part-time students’ completion is dependent on their course load each semester. All students must complete the program within five years.

Graduates of the program will be prepared as nurse executives in either a health care system or an educational system. Based on this preparation, D.N.P. graduates will assume roles as independent practitioners, senior clinical faculty members in a college or university, nursing administrators in a variety of health care organizations, deans or department chairs of schools of nursing or nursing leaders in various organizational settings.

This program is offered under the auspices of the Henry P. Becton School of Nursing and Allied Health, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements

1. For the organizational leadership (indirect) track, a master’s degree in nursing from a Commission on Collegiate Nursing Education (CCNE)- or National League for
Nursing (NLN)-accredited program and current licensure as a registered nurse (RN).

2. For the clinical leadership (direct) track, a master’s degree in nursing with advanced practice specialty from a CCNE/NLN-accredited program, current licensure as an RN and advanced practice nurse and relevant experience in advanced practice.

3. Grade point ratio of 3.50.

4. Interview and completion of a writing sample.

5. Three letters of recommendation attesting to the applicant’s academic ability and potential for doctoral study.

Requirements for the Doctor of Nursing Practice Degree

Core Courses (24 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS8000</td>
<td>Research I: Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>NURS8001</td>
<td>Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NURS8002</td>
<td>Health Care Delivery Systems and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>NURS8003</td>
<td>Health Disparities: Social, Ethical, Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>NURS8004</td>
<td>Research II: Evidence-based Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS8007</td>
<td>Scientific Basis for D.N.P. Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS8008</td>
<td>Information Systems for Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURS8009</td>
<td>Global Health: Epidemiology and Genomics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 24 credits

Specialty Tracks (12 credits)

Clinical Leadership Track
Graduates of the clinical leadership track are prepared to demonstrate practice expertise, specialized knowledge, expanded responsibility and accountability in the care and management of individuals, families and aggregates in the community. The D.N.P. is prepared to be a leader in the formation of therapeutic partnerships and interdisciplinary collaborations to facilitate informed decision making, positive lifestyle change and appropriate self-care. In addition to direct care, D.N.P. graduates use their understanding of the practice context to document practice trends, identify potential systemic changes and make improvements in the care of their particular patient population in the systems within which they practice. Roles of D.N.P. clinical-leadership track graduates include: expert practitioner in various health care settings and independent practice; consultant/role model in complex care management; and designer and director of evidence-based projects.

Organizational Leadership Track
Graduates of the organizational leadership track are prepared to conduct comprehensive organizational, systems and/or community assessments to identify aggregate health or system needs; work with diverse stakeholders for inter- or intraorganizational achievement of health-related organizational goals; and design client-centered delivery systems or policy-level delivery models.

D.N.P. graduates of the organizational leadership track will be prepared as leaders in one of the following areas: management and administration, health care entrepreneurship or education.

Bridge Program to the D.N.P.
The Henry P. Becton School of Nursing and Allied Health offers a bridge program to the D.N.P. for nurses who have a master's degree in a field other than nursing who would like to pursue the D.N.P. degree.

Admission Criteria
1. Bachelor of Science in nursing from a CCNE/NLN-accredited program;
2. Current licensure as a registered nurse; and
3. A master's degree in a field other than nursing.

Requirements
The bridge program consists of three courses (9 credits).

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>NURS600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS701</td>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7771</td>
<td>Seminar in Nursing Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Upon successful completion of the above courses, the student is automatically admitted to the indirect track of the D.N.P. program.

Specialty Courses (12 credits)
Didactic content of these courses will be the same for clinical leadership and organizational leadership students. Application will be specialized for clinical leadership and organizational leadership students.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>NURS8010</td>
<td>Health Quality Assessment and Outcomes</td>
<td>3</td>
</tr>
<tr>
<td>NURS8011</td>
<td>Leadership/Organizational Analysis</td>
<td>3</td>
</tr>
<tr>
<td>NURS8012</td>
<td>D.N.P. Role Development and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>NURS8013</td>
<td>Residency I</td>
<td>1</td>
</tr>
<tr>
<td>NURS8014</td>
<td>Residency II</td>
<td>1</td>
</tr>
<tr>
<td>NURS8015</td>
<td>Capstone Project Advisement</td>
<td>1</td>
</tr>
<tr>
<td>NURS8320</td>
<td>Continuous D.N.P. Matriculation*</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 12 credits

Total Program: 36 credits

*Students who are not actively registered for any course must register for NURS8320 Continuous D.N.P. Matriculation.
Nursing Practice

Accelerated D.N.P. Programs
The Henry P. Becton School of Nursing and Allied Health offers the following accelerated D.N.P. programs:
- Pre-baccalaureate Nursing to D.N.P. (109 credits and 1,565 clinical hours)
- Post-baccalaureate Nursing to D.N.P. (58 credits and 1,065 clinical hours)
- Postmaster's D.N.P. (56 credits and 500 residency hours)

Admission Requirements
Completion of a baccalaureate degree in fields other than nursing and the following academic prerequisites on a college level with a minimum grade of B:
- Human Anatomy and Physiology* (8 credits, with lab),
- General Chemistry* (4 credits, with lab) — Introductory Chemistry is not accepted;
- Microbiology* (4 credits, with lab)
- Statistics (3 credits) — Course must include inferential and descriptive statistics
- Microeconomics or Macroeconomics** (3 credits);
- Bioethics/Medical Ethics** (3 credits)

Pre-Baccalaureate Nursing to D.N.P. (ABSN–D.N.P.) with Gerontology Focus (109 credits and 1,565 clinical hours)

Required Courses (51 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>NURS2003</td>
<td>Fundamentals of Nursing I</td>
<td>3</td>
</tr>
<tr>
<td>NURS2004</td>
<td>Fundamentals of Nursing II</td>
<td>3</td>
</tr>
<tr>
<td>NURS2005</td>
<td>Professional Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Skills: Individual, Family and Groups</td>
<td>3</td>
</tr>
<tr>
<td>NURS2007</td>
<td>Pharmacotherapeutics</td>
<td>3</td>
</tr>
<tr>
<td>NURS3300</td>
<td>Medical-Surgical Nursing I</td>
<td>5</td>
</tr>
<tr>
<td>NURS3310</td>
<td>Psychiatric Nursing</td>
<td>5</td>
</tr>
<tr>
<td>NURS3320</td>
<td>Women’s Health Nursing</td>
<td>5</td>
</tr>
<tr>
<td>NURS3340</td>
<td>Nursing Care of the Child and Family</td>
<td>5</td>
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<tr>
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<tbody>
<tr>
<td>NURS4410</td>
<td>Community Health Nursing</td>
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<tr>
<td>NURS4420</td>
<td>Health Care Management</td>
<td>3</td>
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<tr>
<td>NURS4430</td>
<td>Nursing Research</td>
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<tr>
<td>NURS4440</td>
<td>Medical-Surgical Nursing II</td>
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</table>

After completing above courses, students take the R.N. licensure exam.

M.S.N. Courses (22 credits)

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<tr>
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<tbody>
<tr>
<td>NURS6615</td>
<td>Advanced Pharmacology</td>
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<tr>
<td>NURS6620, NURS6621</td>
<td>Advanced Health Assessment Practicum</td>
<td>4</td>
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<tr>
<td>NURS6682, NURS86683</td>
<td>Primary Care of the Adult Gerontology I (Lecture and Clinical)</td>
<td>4</td>
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<tr>
<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
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<tr>
<td>NURS7735, NURS7736</td>
<td>Advanced Adult Gerontology II (Lecture and Clinical)</td>
<td>4</td>
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<tr>
<td>NURS7759, NURS7760</td>
<td>Primary Care of the Adult Gerontology III (Lecture and Clinical)</td>
<td>4</td>
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After completing above courses, students take the APN exam.

D.N.P. Courses (36 credits)

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<tr>
<td>NURS8013</td>
<td>Residency I</td>
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</tr>
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<td>NURS8015</td>
<td>Capstone Project Advisement</td>
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Post-Baccalaureate Nursing to D.N.P. (M.S.N.–D.N.P.) (58 credits and 1,065 clinical hours)

M.S.N. Courses (22 credits)

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<td>Primary Care of the Adult Gerontology III (Lecture and Clinical)</td>
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After completing above courses, students take the APN exam.

D.N.P. Courses (36 credits)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS8000</td>
<td>Research I: Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>NURS8001</td>
<td>Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>NURS8002</td>
<td>Health Care Delivery Systems and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>NURS8003</td>
<td>Health Disparities: Social, Ethical, Legal Issues</td>
<td>3</td>
</tr>
<tr>
<td>NURS8004</td>
<td>Research II: Evidence-based Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS8007</td>
<td>Scientific Basis for D.N.P. Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS8008</td>
<td>Information Systems for Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURS8009</td>
<td>Global Health: Epidemiology and Genomics</td>
<td>3</td>
</tr>
<tr>
<td>NURS8010</td>
<td>Health Quality Assessment and Outcomes</td>
<td>3</td>
</tr>
</tbody>
</table>

*Must have been taken within the last five years.
**Required prerequisite for one-year program; taken as corequisite for two-year program only.
**Course Offerings**

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

**Nursing Practice**

Henry P. Becton School of Nursing and Allied Health

**NURS8000**

3 Credits

**Research I: Research Methodology**

This course focuses on the principles and conduct of research in the health care profession. Emphasis is on techniques for the control of variables, data analysis and interpretation of results. Students will do an in-depth analysis of the interrelationship of theoretical frameworks, design, sample selection, data-collection instruments and data-analysis techniques. Content is discussed in terms of clinical/nursing research problems and application to clinical settings. Prerequisite: NURS8001 Applied Statistics.

**NURS8001**

3 Credits

**Applied Statistics**

This class is designed as an accelerated course to demonstrate applied statistical procedures in medical/nursing contexts. Students will analyze medical/nursing research using major statistical techniques. At the completion of this course, students will have an understanding of applied statistical procedures, eyeball-estimate the descriptive and inferential statistics appropriate for data sets, determine which inferential statistics, if any, should be applied to analyze data, evaluate data using appropriate statistical tools, calculate all statistical tests and interpret findings.

**NURS8002**

3 Credits

**Health Care Delivery Systems and Public Policy**

The course is an overview of trends in the delivery, financing and organization of health services in the United States. The American health care system is compared with health care services of other countries. Approaches to managing quality, access and costs are considered in the context of their social and ethical implications. Government policymaking is reviewed to form the foundations for discussing the political economy of health-services delivery.

**NURS8003**

3 Credits

**Health Disparities: Social, Ethical, Legal Issues**

This course explores the concepts of health disparities and social justice with particular attention to the structural causes of historical and contemporary inequalities as they relate to race and socioeconomic status. Methods of calculating different measures of health disparity will be analyzed, and strategies for creating equality in access to health care will be explored. The course will also examine legal and ethical issues affecting health care.

**NURS8004**

3 Credits

**Research II: Evidence-based Research**

Emphasis in this course is placed on methods for designing evidence-based studies and processes for obtaining and evaluating findings as scientific evidence for practice. Students will design projects to address emerging clinical problems. Methods to develop best practices and practice guidelines and to facilitate the evaluation of systems of care that will improve patient safety and outcomes will be explored.

**NURS8007**

3 Credits

**Scientific Basis for D.N.P. Practice**

The focus is on biophysical, nursing, psychosocial and organizational sciences as the basis for the highest level of nursing practice, research and health care delivery. The emphasis in this course is on translation and utilization of theory to D.N.P. nursing practice and research. Knowledge from the biophysical, psychosocial and organizational sciences are analyzed and evaluated for application to nursing research and practice.

**NURS8008**

3 Credits

**Information Systems for Health Care**

The course focuses on the application of information technology (IT) and information systems (IS) to improve health care effectiveness. It explores IS/IT concepts, models and frameworks that enhance decisions regarding implementation, planning and evaluation of information systems for use in health care. The course provides the student with the information to evaluate and utilize information technology and systems to support and improve nursing and health care systems.

**NURS8009**

3 Credits

**Global Health: Epidemiology and Genomics**

This course focuses on the principles of epidemiology and genomics and their effects on global health promotion and disease prevention in aggregates. Global health issues and their impact on individuals and communities will be explored and analyzed. Environmental health concepts, emerging infectious diseases and emergency preparedness are included. Prerequisites: NURS8001 Applied Statistics and NURS8003 Health Disparities: Social, Ethical, Legal Issues.
NURS8010
3 Credits
**Health Quality Assessment and Outcomes**
This course examines leadership issues and the role of the nurse executive in quality management. The development of quality standards and benchmarking and the design and implementation of quality initiatives will be examined. The processes for collecting and analyzing appropriate data for management decisions will be discussed. Prerequisite: NURS8001 Applied Statistics. Corequisite: NURS8000 Research I: Research Methodology.

NURS8011
3 Credits
**Leadership/Organizational Analysis**
The emphasis is placed on developing the leadership competencies of the D.N.P. student. The role of the D.N.P. as a clinical and organizational leader will be explored. Organizational and change theories will be discussed and applied to organizational and clinical problems. The student will gain an understanding of grant writing as a tool for facilitating organizational change. Fifty hours of the residency will be completed in this course. Prerequisites: NURS8000 Research I: Research Methodology, NURS8004 Research II: Evidence-based Research and NURS8007 Scientific Basis for D.N.P. Practice.

NURS8012
3 Credits
**D.N.P. Role Development and Entrepreneurship**
This course provides an understanding of the theory and processes related to the making of decisions that determine the direction and success of the organization. Students will gain an understanding of strategic management and organizational design concepts, theories and techniques in order to illuminate the processes of strategy making and implementation. In addition, this course will enable students to gain insight into the concept of entrepreneurship, its importance for an organization and the challenges associated with it. Case analysis and a business plan will be used to apply theories and processes learned in the course. Prerequisite: NURS8011 Leadership/Organizational Analysis.

NURS8014
1 Credit
**Residency II**
Building on the residency experiences of NURS8013 Residency I and under the mentorship of a doctorally prepared preceptor, students complete the residency requirements and the D.N.P. portfolio. Students are required to complete 150 hours in NURS8014 Residency II. Prerequisites: all D.N.P. core and specialty courses.

NURS8015
1 Credit
**Capstone Project Advisement**
The evidence-based project is a faculty-guided experience that provides evidence of critical thinking and aims to improve outcomes in clinical and organizational settings. Prerequisites: NURS8013 Residency I and NURS8014 Residency II.

NURS8320
1 Credit
**Continuous D.N.P. Matriculation**
Students enrolled in the D.N.P. program who are not actively taking any courses must be registered in the Continuous D.N.P. Matriculation course. This course provides the opportunity for students’ continued use of various University facilities, i.e. libraries, recreation facilities and advisement.

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Pharmaceutical Management Studies

NURS8014
1 Credit
**Residency II**
Building on the residency experiences of NURS8013 Residency I and under the mentorship of a doctorally prepared preceptor, students complete the residency requirements and the D.N.P. portfolio. Students are required to complete 150 hours in NURS8014 Residency II. Prerequisites: all D.N.P. core and specialty courses.

NURS8015
1 Credit
**Capstone Project Advisement**
The evidence-based project is a faculty-guided experience that provides evidence of critical thinking and aims to improve outcomes in clinical and organizational settings. Prerequisites: NURS8013 Residency I and NURS8014 Residency II.

NURS8320
1 Credit
**Continuous D.N.P. Matriculation**
Students enrolled in the D.N.P. program who are not actively taking any courses must be registered in the Continuous D.N.P. Matriculation course. This course provides the opportunity for students’ continued use of various University facilities, i.e. libraries, recreation facilities and advisement.

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Pharmaceutical Management Studies (M.B.A.)
See Business, Pharmaceutical Management Studies, page 64.
Pharmacy (Pharm.D.)

The School of Pharmacy and Health Sciences has developed a program and curriculum that looks to prepare students to serve as leaders across the continuum of health care and beyond. From the foundational course work of the first semesters through the final practice experiences of the fourth professional year, students will be challenged to think, lead, implement, communicate and advocate as they expand the borders of pharmacy practice. Through the use of active-learning strategies, technology and enhanced programming including the option to pursue dual degrees, students will be provided with diverse options to prepare for opportunities inside and beyond the traditional realms of pharmacy practice.

The first-year curriculum has been designed to build a solid foundational understanding of the biological, chemical, ethical, professional and communicational aspects of pharmacy. Students will focus on gaining a core of knowledge that will prepare them for their first pharmacy practice experience, to be conducted during the first professional summer at a community setting. During the first professional year, students will also be provided insight and exposure to the expanding horizons of pharmacy, allowing them to begin to contemplate their selection of a dual-degree pathway. Qualified students will be able to select this option of study following their first year in the program, provided they have met both the minimum grade point ratio standards set forth by the School of Pharmacy and Health Sciences and the admissions standards set forth by the master’s degree program.

During the second professional year, students will have the opportunity to probe deeper into all areas of pharmacy, both from the clinical and physical aspects as well as the patient-care focus. Students will cover expansive units in integrated pharmacotherapy where they will cover all therapeutic aspects of major organ systems while simultaneously learning about the pharmacetic techniques of drug preparation and delivery. Students will begin elective course work within their areas of interest, either for the purposes of beginning their dual-degree curriculum or simply for the purpose of broadening horizons and learning more about areas related to the practice of pharmacy. During either the winter or summer intersessions, students will complete their second introductory practice experience within a hospital or hospital-related institutional setting.

The third professional year provides students with the ability to tie together and interconnect all of the concepts learned throughout the prior semesters. With a series of overview courses that provide a holistic view of pharmacy, students will be able to make connections between all of their classroom, laboratory and practice experiences. Students will continue their pursuit of elective course work toward the completion of their master's level of study, while simultaneously completing the necessary final courses in preparation for their advanced practice experiences. Students will gain an additional point of experience through their third introductory practice experience, geared toward a patient-care experience that aligns with their interests and course of study. Courses in epidemiology, pharmacogenomics, pharmacoconomics and outcomes and a course on the global mission of pharmacists are innovative courses that will expand the perspectives of pharmacy students beyond a traditional course structure. The expectation is that students will gain a familiarity and understanding of these significant areas that are so vital to understanding health care and the changing role of the pharmacist inside the health sciences.

The focus on the fourth professional year is the completion of nine advanced pharmacy practice experience (APPE) courses, exposing students to the wide range of options and roles for pharmacists within direct patient care, advocacy, management, public health and other areas. This program is offered under the auspices of the School of Pharmacy and Health Sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

Admission Requirements

General Requirements Overview

Prior to matriculation, applicants to the the FDU School of Pharmacy and Health Sciences should complete 90 semester hours of course work at any regionally accredited college or university, including the following required courses:

- 8 semester hours of anatomy and physiology (with laboratory)
- 8 semester hours of general chemistry (with laboratory)
- 8 semester hours of organic chemistry (with laboratory)
- 8 semester hours of physics (with laboratory)
- 5 semester hours of biochemistry
- 5 semester hours of calculus
- 5 semester hours of applied statistics
- 3 semester hours of speech or professional communication
- 3 semester hours of macroeconomics or microeconomics
- 3 semester hours of English composition

Standardized Testing

The Graduate Record Examinations (GRE) or Pharmacy College Admissions Test (PCAT) are accepted for consideration of admission to the School of Pharmacy and Health Sciences. A student with a bachelor's degree from within undergraduate programs at FDU are exempted from a standardized testing requirement if he or she has completed a 3.50 grade point ratio (GPR) or higher and no prerequisite course grade lower than a B-. Students with a bachelor's degree applying from other institutions are exempted from this requirement if they have a minimum GPR of 3.50 and no prerequisite course grade lower than a B-.

Letters of Recommendation

Three letters of recommendation (two academic references, at least one from a science professor, and the third from a personal reference, who is not a relative). A pharmacist is highly recommended but not required.

Academic Integrity

Students applying to the School of Pharmacy and Health Sciences must sign an affidavit of integrity, stating that all supporting portfolio or written materials submitted for application is the student's original work. Any evidence of plagiarism or academic dishonesty will result in denial of admission or removal from the program and forfeiture of any student status, tuition or fees paid while enrolled within the program.

Technical Standards

For detailed information about the technical standards and requirements, visit
the School of Pharmacy and Health Sciences’ website at www.fdu.edu/pharmacy.

ACPE Accreditation Status
Fairleigh Dickinson University School of Pharmacy and Health Sciences’ Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education, 135 South LaSalle Street, Suite 4100, Chicago, IL 60603; phone: (312) 664-3575; fax: (312) 664-4652; website: www.acpe-accredit.org.

FDU School of Pharmacy and Health Sciences Outcomes
• Provide patient-centered care.
  a) Formulate a patient-centered pharmaceutical care plan (new or revised) in collaboration with other health care professionals, patients and/or their caregivers.
  b) Prepare and dispense medication(s) prescribed (or recommended) as part of the patient’s care plan.
  c) Communicate and collaborate with prescribers, patients, caregivers and other involved health care providers to engender a team approach to patient care.
• Provide population-based care by developing population-specific, evidence-based, disease-management programs.
• Manage human, physical, medical, information and technological resources.
  a) Describe and demonstrate appropriate utilization of management principles and use of health care resources in the American health care system.
  b) Manage pharmacy operations, including personnel, and optimize physical and technological resources to fulfill the practice mission.
• Manage medication distribution, control and use systems and optimize technological resources to fulfill the practice mission.
• Assure the availability of effective, quality health and disease-prevention services.
  a) Communicate and collaborate with health care providers and health policy decision makers to engender a team approach to public health.
  b) Develop public health policy by developing strategic efforts to collaborate with policy makers, payers, members of the community, health providers and other stakeholders and decision-makers to promote public health and resolve public health problems.
• Maintain professional competency in providing pharmaceutical care, managing medication-use systems and understanding various public health care needs and providing appropriate disease-prevention services by committing oneself to being an independent, self-initiated lifelong learner.
• Carry out duties in accordance with legal, ethical, social, economic and professional guidelines.

Requirements for the Pharm.D. Degree

1st Year
Foundations in Pharmacy Education

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHRM6100</td>
<td>Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics</td>
</tr>
<tr>
<td>PHRM6101</td>
<td>Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
</tr>
<tr>
<td>PHRM6201</td>
<td>Pharmaceutics I: Physical Pharmacy</td>
</tr>
<tr>
<td>PHRM6211</td>
<td>Pharmaceutical Calculations I</td>
</tr>
<tr>
<td>PHRM6301</td>
<td>Medical Communication and Technical Writing</td>
</tr>
<tr>
<td>PHRM6321</td>
<td>Pharmacy Practice Law</td>
</tr>
<tr>
<td>PHRM6401</td>
<td>Professional Pharmacy Practice I: Health Care Delivery</td>
</tr>
<tr>
<td>PHRM6700</td>
<td>Beyond the Curriculum: Foundations in Pharmacy Education (1)</td>
</tr>
</tbody>
</table>

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 | 4 |
| PHRM6111 | Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care | 2 |
| PHRM6202 | Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics | 2 |

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 |
| 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: Pulmonary, Eye, Ear, Nose and Throat | 3 |
| PHRM7108 | Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health | 4 |
| PHRM7112 | Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care | 2 |

Credits

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.....18

Completed in June, July or August

PHRM6501 | Introductory Pharmacy Practice Experience (IPPE) I: Community | 4 |
3rd Year
Preparring Practitioners

Fall Semester
PHRM8109
Integrated Pharmacoepidemiology: Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes........2
PHRM8301
Integrated Pharmacoepidemiology: Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes........2
PHRM8402
Professional Pharmacy Practice IV: Pharmacy Leadership and Management.........................2

PHRM701
Beyond the Curriculum: Preparing Practitioners (2)...........1
Electives...........................................9
Total........19

4th Year
Core Advanced Pharmacy Practice Experiences

PHRM9101
Advanced Pharmacy Practice Experience (APPE) I: Community........5
PHRM9102
Advanced Pharmacy Practice Experience (APPE) II: Institutional........5
PHRM9103
Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care........5
PHRM9104
Advanced Pharmacy Practice Experience (APPE) IV: Acute Care........5

Elective Advanced Pharmacy Practice Experiences
Choose four

PHRM9201
Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management II........5
PHRM9209
Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management II........5
PHRM9210
Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS II........5
PHRM9211
Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion II........5
PHRM9212
Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion II........5
PHRM9301
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I........5
PHRM9302
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I........5
PHRM9303
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I........5
PHRM9304
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice II........5
PHRM9305
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I........5
PHRM9306
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care II........5
PHRM9307
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I........5
PHRM9308
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease II........5
PHRM9309
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I........5
## 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.

**PHRM6100**  
4 Credits  
*Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics*  
This survey course covers several fundamental concepts required for understanding pharma-

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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>PHRM9310</td>
<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology II</td>
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<tr>
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<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care II</td>
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<td>PHRM9315</td>
<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I</td>
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<td>PHRM9316</td>
<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health II</td>
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<td>PHRM9317</td>
<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Transitions of Care I</td>
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<td>Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I</td>
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<tr>
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Total...40
cotherapy. Pharmacology is the unified study of the properties of chemicals and living organisms and all aspects of their interaction. Medicinal chemistry will address a chemically oriented introduction to pharmacology and therapeutics, focusing on structure, pharmacoophores and drug activity. The class emphasizes familiarity with drug structures and properties and an understanding of how the chemical structures and physicochemical properties of representative drugs determine their molecular mechanisms of action. The pharmacokinetics component will address how the body impacts drugs. These lectures will focus on a mathematical understanding of drug concentrations, pharmacological activity and therapy. Concepts of toxicology and toxicokinetics will also be introduced in acute and chronic settings. Corequisite: PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care.

PHRM6101
3 Credits
Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care
Integrated pharmacotherapy courses combine biological sciences, human systems and clinical sciences. As one of the two foundation courses, this course lays the foundation of subsequent integrated pharmacotherapy modules by providing students with the overview of biochemistry, human anatomy and physiology, human immunology and microbiology. Students are also introduced to genetics and molecular diagnostics, which will be revisited in their third year. Corequisite: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics.

PHRM6102
3 Credits
Integrated Pharmacotherapy II: Gastrointestinal
This is the second integrated pharmacotherapy module focusing on the gastrointestinal system. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics, clinical and pharmaceutical therapy related to the presentation and management of gastrointestinal diseases (gastroesophageal reflux, peptic ulcer, inflammatory bowel disease, nausea and vomiting, diarrhea, constipation and irritable bowel disease, cirrhosis, drug-induced gastrointestinal disease, pancreatitis, gallbladder and viral hepatitis). Physicochemical 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 gastrointestinal 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: PHRM6101 Integrated Pharmacotherapy II: Conceptual Connections and Patient Care.

PHRM6105
3 Credits
Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care
This is the third integrated pharmacotherapy module focusing on over-the-counter products, dermatology and self care. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of these areas (herbal/dietary supplements, fluids/nutrition, pain, common cold/flu, dermatology, otic care, oral care and opthalmic care, smoking cessation, obesity, sleep disorders, reproductive and genital disorders). Physicochemical 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 the use of over-the-counter and self-care medications and dermatological 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.

PHRM6104
4 Credits
Integrated Pharmacotherapy IV: Cardiology
This is the fourth integrated pharmacotherapy module focusing on the cardiovascular system. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of cardiovascular diseases. Physicochemical 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.

PHRM6201
5 Credits
Pharmaceutics I: Physical Pharmacy
This is the first of three courses in the pharmaceutics series. This course introduces students to basic concepts (e.g., solubility, permeability, stability, etc.) in physical pharmacy and pharmaceutical sciences, and covers gas and solution properties, non-electrolyte and electrolyte solutions, pharmaceutical solids, dissolution and drug release. Mastering the basic concepts will provide the students with a sound foundation in pharmaceutical-product development (dosage forms and drug-delivery systems) as well as pharmacy practice.
PHRM6202
2 Credits
**Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics**
This is the second course in the pharmaceutics series focusing on oral dosage forms. This course is designed and taught using an integrated approach, covering various topics in pharmaceutics (oral dosage forms), biopharmaceutics and pharmacokinetics. The students will learn not only the fundamental aspects of oral dosage forms (solutions, suspensions and solids), but also the biopharmaceutic and pharmacokinetic aspects of oral dosage forms related to drug absorption and evaluation. The course also integrates the application of basic pharmacokinetic principles to special populations and disease states. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science; Pharmacology, Medicinal Chemistry, Pharmacokinetics and PHRM6201 Pharmaceutics I: Physical Pharmacy.

PHRM6211
1 Credit
**Pharmaceutical Calculations I**
This course is the first part of the two-semester pharmaceutical calculations series. Accurately performing pharmaceutical calculations is a critical skill in providing patient care in every pharmacy-practice setting. This course introduces students to basic concepts and skills involved in pharmaceutical calculations. The focus of this course is on basic mathematical principles and their application to pharmaceutical calculations in pharmacy practice. The topics include correct interpretation of prescription and medical orders, pharmaceutical measurements, various expressions of concentration and strength, electrolyte and isotonic solutions.

PHRM6212
1 Credit
**Pharmaceutical Calculations II**
This course is the second part of pharmaceutical calculations and focuses on specific calculation skills that are important to practicing pharmacists. The students have the opportunity to apply the basic concepts and calculation skills gained in PHRM6211 Pharmaceutical Calculations I to dose and clinical calculation, IV and parenteral solutions and calculations involved in extemporaneous compounding. Prerequisite: PHRM6211 Pharmaceutical Calculations I.

PHRM6301
2 Credits
**Medical Communication and Technical Writing**
This course is designed to introduce pharmacy students to the concepts and methods of technical and professional communication utilized in different areas of health care. Development of professional documents including cover letters, personal statements and curriculum vitae utilized in pharmacy practice and required for student pharmacist e-portfolios is a specific focus. Additionally, oral communication skills including assembling presentation materials critical to successfully delivering a professional oral presentation to an audience will be developed. Lastly, students will be introduced to key medical terminology used throughout health care.

PHRM6321
2 Credits
**Pharmacy Practice Law**
This course is designed to provide pharmacy students with the basic purposes pharmacy law serves, and to prepare them to comply with laws, regulations and ethical standards in their professional and personal lives. The course will feature in-depth reading of texts and case studies, case presentations, short papers and exams.

PHRM6401
3 Credits
**Professional Pharmacy Practice I: Health Care Delivery**
This course provides foundational knowledge necessary to understand the organization of the health care system and health care delivery in the United States. The various roles played by pharmacists in the U.S. are also presented. Selected international health care systems are covered for comparison purposes. A definition of health care is developed; U.S. health care financing and health economics are introduced; legislative initiatives, such as the Affordable Care Act, and alternative health care models such as the medical home are presented. The implications for both health care delivery and the evolution of the pharmacy profession with these emerging initiatives are explored. The efficient and safe use of health care and pharmaceutical resources to achieve better patient clinical outcomes and improved quality of life in a financial environment where resources are limited is a central theme. Related to this, the U.S. drug-approval process and the pharmaceutical industry are described. The increasing use of informatics and computer-based systems, including electronic medical records and databases, in pharmacy practice is described as well. Multidisciplinary aspects of health care are examined and multiple factors important to the contemporary practice of pharmacy are explored including the social, legal/regulatory, economic, public health, professional and patient-care implications of pharmacy practice. The role of the pharmacist as a member of an interdisciplinary team of health care professionals is introduced.

PHRM6402
2 Credits
**Professional Pharmacy Practice II: Communication in Health Care**
The Communication in Health Care course develops students’ nonwritten professional communication skills. The course focuses on developing oral and nonverbal communications skills, an appreciation of different cultural approaches to health care (cultural competency) and health literacy in patient care as well as communication within interprofessional teams. Communication strategies for gathering information from patients, providing information and verifying understanding will be reviewed. Interprofessional communication approaches for fostering relationships with other health care professionals will be explored. This course is designed to help students gain the skills required to effectively communicate with all individuals involved in delivering and receiving health care such as patients, physicians, nurses and family members. Prerequisites: PHRM6301 Medical Communication and Technical Writing and PHRM6401 Professional Pharmacy Practice I: Health Care Delivery.

PHRM6501
4 Credits
**Introductory Pharmacy Practice Experience (IPPE) I: Community**
This introductory experience is an experiential-education course enabling the student to integrate classroom knowledge with practical pharmacy experience through exposing students to the patient care, administrative, distributive and overall practice of contemporary community pharmacy. Students will be placed at an IPPE site for four weeks totaling 32 hours per week for a final total of 128 hours experience (IPPE). The student pharmacist will observe and participate with pharmacists, fellow pharmacy students, if applicable, and other health care professionals in the provision of direct patient care. The student will become familiar with essential elements surrounding the dispensing of prescriptions including, but not limited to, interpreting a patient profile, transcribing an oral prescription, preparing a prescription label and patient counseling, in order to assist the pharmacist in dispensing prescriptions. The student pharmacist will observe and participate in assisting patients in selection of nonprescription (over-the-counter) products, monitoring devices and durable medical equipment. This course may require students to participate in an online learning component, reflective sessions in the School of Pharmacy and Health Sciences and completion of a service learning project as assigned. This course prepares students to acquire critical-thinking competencies enabling them to continually build their knowledge across the curriculum as they progress and engage in subsequent experiential-practice experiences. Prerequisite: successful completion of first year of courses.

PHRM6700
0 Credits
**Beyond the Curriculum: Foundations in Pharmacy Education (1)**
A great deal of education happens outside of the formal course work. In this course, students will have an opportunity to engage in programs to learn more about the emerging areas of pharma-
cy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. This course will serve as a platform for students to network with industry and educational leaders to begin to develop their personal and professional networks as they prepare for their future roles in pharmacy.

PHRM6701
1 Credit
Beyond the Curriculum: Foundations in Pharmacy Education (2)
A great deal of education happens outside of the formal course work. In this course, students will have an opportunity to engage in programs to learn more about the emerging areas of pharmacy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. This course will serve as a platform for students to network with industry and educational leaders to begin to develop their personal and professional networks as they prepare for their future roles in pharmacy.

PHRM7105
4 Credits
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology
This is the fifth integrated pharmacotherapy module focusing on the nervous system. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of neurological and psychiatric diseases. Basic principles and knowledge about anesthesiology will also be introduced. Physicochemical 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 the skills to solve problems related to neurologic and psychiatric 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: PHRM7111 Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.

PHRM7107
3 Credits
Integrated Pharmacotherapy VII: Pulmonary, 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 biochemistry, anatomy and physiology, pathophysiology, medicinal chemistry, pharmacology, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of these disorders will be discussed. Physicochemical and biological principles of dosage forms and drug-delivery strategies used to treat these conditions will be discussed, as will the 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.

PHRM7108
4 Credits
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health
This is the eighth integrated pharmacotherapy module focusing on the endocrine, urinary tract, renal and reproductive health systems. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medicinal chemistry, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of diseases of these systems. Physicochemical 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 endocrine, urinary-tract, renal and reproductive system 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: PHRM7112 Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.

PHRM7111
2 Credits
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care
This course ties in the contents learned in Integrated Pharmacotherapy V–VI in a case-based, active-learning fashion. While Integrated Pharmacotherapy V–VI prepare students with clinical knowledge and skill set, this course is designed to provide hands-on experience of patient interaction and assessment, triage and referral and treatment formulation and recommendation. Students will practice and become competent in patient-assessment skills system-by-system, learn effective counseling techniques with regards to drug administration, familiarize themselves with New Jersey prescription regulations and acquire skills in dosing calculations, all of which are commonly encountered in pharmacy practice. Real-life cases involving infectious, neurologic and psychiatric diseases will require students to think critically in every step of the care: presentation, history-taking, assessment, treatment formulation and administration and monitoring for efficacy and toxicity. Students will be certified by the American Pharmacist’s Association Medication Therapy Management Program. 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. Corequisites: PHRM7105 Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology and PHRM7106 Integrated Pharmacotherapy VI: Infectious Disease.

PHRM7112
2 Credits
Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care
This course ties in the contents learned in Integrated Pharmacotherapy VII–VIII in a case-based, active-learning fashion. While Integrated Pharmacotherapy VII–VIII prepare students with clinical knowledge and skill set, this course is designed to provide hands-on experience of patient interaction and assessment, triage and referral and treatment formulation and recom-
Students will practice and become competent in patient-assessment skills system-by-system, learn effective counseling techniques with regards to drug administration, familiarize themselves with New Jersey prescription regulations and acquire skills in dosing calculations, all of which are commonly encountered in pharmacy practice. Real-life cases involving renal diseases, endocrine diseases, pulmonary diseases, ophthalmic diseases, otic diseases and reproductive health will require students to think critically in every step of the care: presentation, history-taking, assessment, treatment formulation and administration and monitoring for efficacy and toxicity. Students will be certified by the American Pharmacist’s Association Diabetes Care Program. 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. Corequisites: PHRM7107 Integrated Pharmacotherapy VII: Pulmonary, Eye, Ear, Nose and Throat and PHRM7108 Integrated Pharmacotherapy VIII: Endocrine, Renal and Reproductive Health.

PHRM7121
3 Credits
**Clinical Toxicology**

The course is designed to give the student an overview of the management of the poisoned patient or one suffering from select drug-induced diseases. The student will become familiar with general principles in managing the poisoned patient, recognize toxicities and understand the role of the pharmacist in managing a poisoned patient and the role of the local poison center. 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.

PHRM7122
3 Credits
**Natural Medicines**

This elective course will introduce students to in-depth concepts of pharmacology of natural medicines as well as specific disease states which can be treated with natural medicines. Overall philosophy of utilizing natural medicine in Western cultures will be discussed. In addition, alternative therapeutic modalities such as acupuncture, homeopathy and others will be reviewed.

PHRM7201
2 Credits
**Pharmaceutics III: Dosage Form and Drug Delivery Systems**

This course includes a didactic section and a compounding lab. The didactic lectures cover drug-dosage forms and drug-delivery systems commonly used in modern medicine. The emphasis is placed on understanding the basic physicochemical and biopharmaceutical principles underlining each dosage form and delivery system. The students will learn the proper use, administration and storage of various drug-dosage forms and delivery systems. The laboratory session provides the students with hands-on experience in extemporaneous product compounding. In the compounding lab, the students will have the opportunity to apply the basic concepts and calculation skills to extemporaneous compounding. The students will prepare various compounding products including syrup, suspension, ointment, gel, capsule and suppository. Prerequisites: PHRM6201 Pharmaceutics I: Physical Pharmacy and PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics.

PHRM7202
2 Credits
**Pharmaceutics IV: Sterile Products and Biopharmaceuticals**

This is the three-course series in pharmaceutics. Building upon basic concepts and calculation skills acquired in PHRM6201 Pharmaceutics I: Physical Pharmacy, PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics, PHRM6211 Pharmaceutical Calculations I and PHRM6212 Pharmaceutical Calculations II, students will have the opportunity to apply the knowledge and skills to various sterile products including (parenteral, ophthalmic, nasal and irrigation solutions). Biologics products (monoclonal antibody, vaccines and adjuvants) are also included. The course also covers various routes of administration, sterile-product preparation and quality standards. The course is accompanied by a laboratory session, which provides the students with hands-on experience in sterile-product compounding. Prerequisites: PHRM6201 Pharmaceutics I: Physical Pharmacy, PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics, PHRM6211 Pharmaceutical Calculations I and PHRM6212 Pharmaceutical Calculations II.

PHRM7301
2 Credits
**Biostatistics**

This two-credit course introduces pharmacy students to the concepts and methods of biostatistics. Descriptive statistics, inferential statistics, hypothesis testing will be covered. Simple regression techniques used in evaluating pharmacologic therapies in populations will be discussed. The skills learned in this course build the quantitative foundations that students will apply to evaluate the biomedical literature and assess its applicability to their patients.

PHRM7302
3 Credits
**Epidemiology and Study Design**

This course is designed to introduce students to basic concepts of epidemiology and study designs used in the evaluation of health care technologies. Epidemiological terminology such as risk, hazard, odds and relative-risk ratios will be introduced. Further, this course will include critical evaluation of evidence-based medical literature and identification of sources of bias in published medical literature. Prerequisites: PHRM7301 Biostatistics and PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.

PHRM7321
3 Credits
**History of Pharmacy**

This course reviews the history of the profession of pharmacy. Two main focuses will be 1) the evolution of pharmacy as a distinct patient-care profession throughout ancient history and the Middle Ages and 2) the growth and expansion of pharmacy as a profession in the United States from colonization in the 17th century to present-day trends in pharmacy practice that will shape the future of the profession.

PHRM7322
3 Credits
**Drugs of Abuse**

This course reviews the history, pathophysiology, epidemiology and societal aspects of the phenomenon of drug abuse and addiction. Two main focuses will be 1) drug addiction as a recognizable disease and its impact on the patient, their caregivers and the health care system and the 2) pathopharmacology of all abused compounds including illegal and prescription drugs as well as emerging designer drugs. Corequisite: PHRM7112 Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.

PHRM7323
3 Credits
**Substance Abuse Treatment Research: Clinical Implications for Pharmacists**

This advanced course covers several fundamental concepts required for understanding substance abuse and addiction research. It provides a comprehensive overview of the chemistry and advanced pharmacology of the most common substances of abuse. The second half of the course will cover issues related to diversity in substance-abuse research treatments and the clinical applications. Current research studies on addiction treatments and the role of the pharmacist, as an integral part of the health care team, will be explored. Students will also be introduced to current measures in place for the curtailment and prevention of substance abuse from a research perspective. Concepts will also be
introduced in acute and chronic settings.

PHRM7401
2 Credits
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology
This two-credit course focuses on the essential sources of drug information, pharmaceutical informatics and toxicology. It introduces the use of health-information technology in delivering health care. Topics covered include primary, secondary and tertiary sources of drug information; medication safety; an introduction to the use of drug monographs and the role of electronic medical records; e-prescribing; and computerized physician-order entry in pharmacy practice. This course provides an overview of the basic principles of toxicology and poisoning and discusses the identification and management of most commonly encountered toxicities. Prerequisite: PRHM6301 Medical Communication and Technical Writing.

PHRM7402
3 Credits
Practical Politics and Pharmacy
This elective course is designed to be interactive. Students will be introduced to the legislative process in order to develop effective advocacy skills on behalf of the profession. Students in this course will be responsible for being familiar with current pharmacy and related issues by reading professional journals, state and national association legislative updates, relevant newspaper articles, up-to-date bill listings and activities on relevant state and federal issues and utilize the internet as a navigational tool to become informed about and facilitate with the legislative issues directly affecting the profession. Students will learn the backgrounds of their representatives through state and federal rosters and engage them in discourse.

PHRM7410
3 Credits
Service Learning: Culturally Competent Approach to Low-income Families and Homeless Populations
In this course, students will have the opportunity to engage in a semester-long service commitment focused on the low-income and homeless populations. They will work alongside community partners to develop a foundational understanding of the organization’s goals and outcomes in relation to their roles as volunteers. In this team-focused experience, the students will gain an appreciation for both the organization and individual team member’s roles and responsibilities in a community setting. They will communicate with members of the local underserved population through in-person, hands-on interaction, during which students will not only share their knowledge and opinions, but learn the importance of respecting and valuing the knowledge of others. While working in collaboration with other classmates and professionals, students will understand the impact an engaging, values-based and patient-centered team can have on a community. Through class participation, reflection and guided discussions, students will explore and gain a deeper understanding of the potential impact in relation to health disparities, poverty and the medically underserved.

PHRM7411
3 Credits
Service Learning: Culturally Competent Approach to Pediatric Populations
In this course, students will have the opportunity to engage in a semester-long service commitment focused on the health and well-being of pediatric populations. They will work alongside an organization located in Kissimmee, Fla., to develop a foundational understanding of the organization’s goals and outcomes in relation to their roles as volunteers. In this team-focused experience, the students will gain an appreciation for both the organization and individual team member’s roles and responsibilities in a community setting. They will communicate with members of the pediatric population through in-person, hands-on interaction, during which students will not only share their knowledge and opinions, but learn the importance of respecting and valuing the knowledge of others. While working in collaboration with other classmates and professionals, students will understand the impact an engaging, values-based and patient-centered team can have on a community. Through class participation, reflection and guided discussions, students will explore and gain a deeper understanding of the potential impact in relation to pediatric populations, caregiver responsibility and community organizations.

PHRM7412
3 Credits
Service Learning: Culturally Competent Approach to Geriatric Populations
A service-learning based elective course open to P2 and P3 students. In this course students will have the opportunity to engage in a semester-long service commitment focused on the health and well-being of the geriatric population. They will work alongside a community partner to develop a foundational understanding of the organization’s goals and outcomes in relation to their roles as volunteers. In this team-focused experience, the students will gain an appreciation for both the organization and individual team member’s roles and responsibilities in a community setting. They will communicate with members of the geriatric population through in-person, hands-on interaction, during which students will not only share their knowledge and opinions, but learn the importance of respecting and valuing the knowledge of others. While working in collaboration with other classmates and professionals, students will understand the impact an engaging, values-based and patient-centered team can have on a community. Through class participation, reflection and guided discussions, students will explore and gain a deeper understanding of the potential impact in relation to geriatric population, caregiver responsibility and community organizations.

PHRM7501
4 Credits
Introductory Pharmacy Practice Experience (IPPE) II: Institutional
This hospital practice-experience course will develop students’ awareness, knowledge and skills in various aspects of hospital-pharmacy practice and the roles and responsibilities of the pharmacists as a generalist and overseer of pharmacy management and therapeutic operations in a hospital setting. Introduction of the principles of medication-therapy management as the responsibility of the pharmacists and current topics in health care will be introduced enabling students to tangibly integrate classroom knowledge with hospital-pharmacy practice policies and procedures. Students will be placed at a site for 32 hours each week for four weeks acquiring knowledge across the curriculum as they engage in hospital health-system experiences that promote quality pharmacy operations and services, which optimize patient outcomes and promote patient safety.

PHRM7700
0 Credits
Beyond the Curriculum: Expanding Horizons (1)
A great deal of education happens outside of the formal course work. In this course, students will have an opportunity to engage in programs to learn more about the emerging areas of pharmacy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. This course will serve as a platform for students to network with industry and educational leaders to begin to develop their personal and professional networks as they prepare for their future roles in pharmacy. Prerequisites/Corequisites: PHRM6700 Beyond the Curriculum: Foundations in Pharmacy Education (1) and PHRM7600 Beyond the Curriculum: Foundations in Pharmacy Education (2).

PHRM7701
1 Credit
Beyond the Curriculum: Expanding Horizons (2)
A great deal of education happens outside of the formal course work. In this course, students will have an opportunity to engage in programs to
learn more about the emerging areas of pharmacy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. This course will serve as a platform for students to network with industry and educational leaders to begin to develop their personal and professional networks as they prepare for their future roles in pharmacy. Prerequisites/Corequisites: PHRM6700 Beyond the Curriculum: Foundations in Pharmacy Education (1) and PHRM6701 Beyond the Curriculum: Foundations in Pharmacy Education (2).

PHRM7801
5 Credits
Informatics and Information Systems
This course provides an overview of the practical components of health care information systems, including an introduction to the capture, storage and processing of electronic medical records, the changing dynamics of the health information technology and the impact of technology, security and regulation on the transfer and storage of health information.

PHRM7810
3 Credits
Clinical Trial Design and Regulatory Requirements
This course covers the principles of clinical-trial design, including determination and evaluation of study objectives, commonly used methodologies of study design and the ethical, legal, statistical, sociological and epidemiological considerations that play a role in design of clinical protocols.

PHRM8109
3 Credits
Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations
This is the ninth integrated pharmacotherapy module focusing on autoimmune, rare and special-population diseases and medication management. This course integrates basic principles of biochemistry, anatomy and physiology, pathophysiology, pharmacology, medical chemistry, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of diseases of these systems. Physicochemical 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 autoimmune, rare and special-population 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: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.

PHRM8110
3 Credits
Integrated Pharmacotherapy X: Hematology and Oncology
This course provides students with an integrated approach to understand the principles of and solve problems related to oncology in an active, learning-based environment. The biochemistry, anatomy and physiology, pathophysiology, medicinal chemistry, pharmacology, pharmacokinetics, clinical chemistry and pharmacotherapy related to the presentation and management of oncologic diseases will be discussed. Physicochemical and biological principles of dosage forms and drug-delivery strategies used to treat these conditions will be discussed, as will the materials and methods used to prepare and administer appropriate treatments. 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: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.

PHRM8111
2 Credits
Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care
This course ties in the contents learned in Integrated Pharmacotherapy I–X, in a case-based, active-learning fashion. While Integrated Pharmacotherapy I–X prepared students with clinical knowledge and skill set, this course is designed to provide hands-on experience of patient interaction and assessment, triage and referral and treatment formulation and recommendation. Students will demonstrate proficiency in patient-assessment skills system-by-system, effective counseling techniques with regards to drug administration, New Jersey prescription regulations and skills in dosing calculations, all of which are commonly encountered in pharmacy practice. Real-life cases representing the disease states previously covered in the integrated pharmacotherapy courses will require students to think critically in every step of the care: presentation, history-taking, assessment, treatment formulation and administration and monitoring for efficacy and toxicity. Students will work on cases focusing on patients with several co-morbidities. Students will be certified by the American Pharmacist’s Association Immunization Program. 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.

PHRM8113
3 Credits
Advanced Topics in Pharmacotherapy I
This course provides students an opportunity to expand their knowledge in the area of drug-induced diseases, nutrition, infectious diseases and critical-care pharmacotherapy. A case-based, team-based learning approach will be utilized to foster an interactive learning experience. Students will build upon their current pharmacotherapeutic knowledge through in-depth reading, discussions and case presentations. Prerequisites: PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal; PHRM6104 Integrated Pharmacotherapy IV: Cardiology; PHRM7105 Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology; PHRM7106 Integrated Pharmacotherapy V: Infectious Disease and PHRM8110 Integrated Pharmacotherapy X: Hematology and Oncology.
PHRM8114
3 Credits
Advanced Topics in Pharmacotherapy II – Geriatric and Pediatrics
This course will enhance the pharmacy students' skills in geriatric and pediatric pharmacotherapy by promoting their understanding of the unique physiologic characteristics of such special populations. The course will concentrate on the pharmacotherapy management of the disease states and special-care needs as it applies to geriatric and pediatric patients. The goals of this course are to develop skills necessary to optimize the care of inpatient and outpatient geriatric and pediatric patients by utilizing evidence-based and patient-centered therapy. The course will utilize a combination of didactic lectures, case discussions, collaborative learning and field-based activities. Prerequisites: PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal; PHRM6104 Integrated Pharmacotherapy IV: Cardiology; PHRM7105 Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology; and PHRM7106 Integrated Pharmacotherapy VI: Infectious Disease.

PHRM8115
3 Credits
Advanced Topics in Pharmacotherapy III – Critical Care
This course provides students an opportunity to expand their knowledge in the areas of critical-care pharmacotherapy. A case-based, team-based learning approach will be utilized to foster an interactive learning experience. Students will build upon their current pharmacotherapeutic knowledge through in-depth reading, discussions, case presentations. In this elective course, they will develop critical-thinking, problem-solving and decision-making skills that will help them effectively evaluate medication-related issues and develop appropriate pharmacotherapy recommendations as would be required of pharmacists working in an intensive care unit. Prerequisites: PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal; PHRM6104 Integrated Pharmacotherapy IV: Cardiology; PHRM7105 Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology; PHRM7106 Integrated Pharmacotherapy VI: Infectious Disease; PHRM7107 Integrated Pharmacotherapy VII: Pulmonary, Eye, Ear, Nose and Throat; and PHRM7108 Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health.

PHRM8116
3 Credits
Advanced Topics in Pharmacotherapy IV – Infectious Diseases
This course provides students an opportunity to expand their knowledge in the area of infectious diseases including human immunodeficiency virus (HIV) infection. Students will build upon their current pharmacotherapeutic knowledge through in-depth reading, discussions, journal club and patient-case presentation. Prerequisite: PHRM7106 Integrated Pharmacotherapy VI: Infectious Disease.

PHRM8117
3 Credits
Emerging Topics in Cancer Pharmacology and Pharmacotherapeutics
This course focuses on advances in pharmacology and clinical applications of novel anticancer agents. It combines didactic lectures on the emerging topics in cancer pharmacology and pharmacotherapeutics with journal-club presentation and in-class activities. Emphasis of the presentations will be on the translation of biomedical science discoveries into therapeutic agents and implementation of novel anticancer agents into clinical practice. Students will be exposed to pharmacotherapeutics of several types of cancers not covered in the core hematology/oncology course. Prerequisite: PHRM8110 Integrated Pharmacotherapy X: Hematology and Oncology.

PHRM8201
2 Credits
Pharmacogenomics and Personalized Medicine
This course focuses on how genetic factors can affect the pharmacokinetic and/or the pharmacodynamic parameters of a drug, ultimately impacting its efficacy and toxicity in the patient. Considerations of genomic and phenotypic information to individualize pharmaco therapy and minimize adverse events are emphasized. The underlying principles of pharmacology, pharmacokinetics and pharmaco therapeutics are reinforced. This course includes discussions on biochemical analytical methods, clinical interpretation of laboratory data, applied pharmacokinetics and therapeutic drug monitoring and principles and applications in pharmacogenomics. Economic and ethical issues in relation to the incorporation of pharmacogenomic data in the clinical decision-making process are also discussed. All concepts are discussed against the backdrop of patient-centered care. 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.

PHRM8202
3 Credits
Current Therapeutic Targets and Their Challenges
This course will provide students with an understanding of the drug discovery and development process. The course will be developed into three sections. In the first section, topics covering drug discovery and development will be discussed, including lead finding, hit-to-lead activities, lead optimization, preclinical development and clinical development. In the second section, challenges germane to current therapeutic targets in the neuroscience, cardiovascular, oncology, inflammation and diabetes therapeutic areas will be discussed. In the final section, students will have the opportunity to research and present a current therapeutic target, exploring the potential advantages and challenges of that target. 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.

PHRM8203
3 Credits
Advanced Sterile Pharmacy Dispensing and Compounding
Building upon the knowledge gained in PHRM7201 Pharmaceutics III: Dosage Form and Drug Delivery Systems and PHRM7202 Pharmaceutics IV: Sterile Products and Biopharmaceuticals, students will learn the advanced science and art of preparing and dispensing a
wide variety of Compounded Sterile Products (CSP). Emphasis is placed on a variety of aseptic technique methods and common regulatory and procedural processes employed in clean rooms. Students will learn USP 797, proposed USP 800 and Board of Pharmacy definitions, concepts and standards. This course provides advanced knowledge for compounding-dispensing techniques, standards and principles and integrates with knowledge gained and will reply upon retention of principles covered in PHRM7201 Pharmaceutics III: Dosage Form and Drug Delivery Systems and PHRM7202 Pharmaceutics IV: Sterile Products and Biopharmaceuticals. The course will have didactic and practical components. Prerequisites: PHRM7201 Pharmaceutics III: Dosage Form and Drug Delivery Systems and PHRM7202 Pharmaceutics IV: Sterile Products and Biopharmaceuticals.

PHRM8211
5 Credits
Advanced Topics in Pharmaceutical Sciences
This course provides students an opportunity to expand their knowledge in the areas of pharmaceutical sciences. A case-based, team-based learning approach will be utilized to foster an interactive learning experience. Students will build upon their current knowledge through in-depth reading, discussions and case presentations. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics; PHRM6101 Foundations in Integrated Pharmacotherapy I – An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care; PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics; and PHRM7202 Pharmaceutics IV: Sterile Products and Biopharmaceuticals.

PHRM8212
5 Credits
Obesity
This course will cover the broad subject of obesity from its epidemiology and associated comorbidities to its physiological underpinnings and various available treatment options. Firstly, it will provide information regarding the prevalence of obesity along with important timelines. It will cover the complex interplay of various endogenous hormones that are involved in appetite regulation (affecting hunger and satiety). The biochemistry of adipocytes and their role in energy balance will be discussed. Current pharmacotherapeutic treatment options will be discussed along with a historical perspective of prior treatments and the reasons for their failure/withdrawal, as well as potential future targets for anti-obesity drugs. This course will also discuss non-pharmacological options to treating and preventing obesity, along with other topics of relevance to pharmacists such as drug-induced obesity and pharmacodynamics/pharmacokinetic issues in obese patients. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics; PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care; and PHRM6501 Medical Communication and Technical Writing. Corequisite: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.

PHRM8301
5 Credits
Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes
This course is designed to familiarize students with the principles of pharmacoepidemiology and pharmacoeconomics. The course focuses on major areas of the evolving fields of pharmacoepidemiology and pharmacoeconomics with an emphasis on measuring health outcomes. It builds on and extends the skills and concepts learned in previous courses within the curriculum that are focused on the effectiveness of medication use at a population level (PHRM7301 Biostatistics, PHRM7302 Epidemiology and Study Design Evaluation, PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology). The additional dimension of efficiency or cost relative to value of a given health benefit or outcome is introduced and developed. The role of pharmacoepidemiologic studies in post-marketing safety studies and communication of risk is covered as is the role of both pharmacoepidemiologic and pharmacoeconomic studies in the formulation process used for medication coverage by insurers. It is important for students to understand how to evaluate, interpret and apply medical research involving pharmaceutical care of individual patients and community or population health (public health) and use this information to aid their decision-making processes in pharmacy practice. The principles discussed and applied in this course will better prepare students to function in this capacity. Prerequisites: PHRM6301 Medical Communication and Technical Writing, PHRM6401 Professional Pharmacy Practice I: Health Care Delivery, PHRM7301 Biostatistics, PHRM7302 Epidemiology and Study Design Evaluation and PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.

PHRM8302
2 Credits
Public Health and the Global Mission of Pharmacy
The course covers the evolution and basic principles of public health, including focus on relevant public health care issues affecting populations in the United States. Additionally, global public health issues are highlighted, particularly those unique to populations in developing and emerging countries. Information, principles and tools introduced in previous courses (PHRM6401 Professional Pharmacy Practice I: Health Care Delivery, PHRM7301 Biostatistics, PHRM7302 Epidemiology and Study Design Evaluation, PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology and PHRM8301 Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes) are reinforced and applied to public health topics, particularly those that pharmacists are likely to encounter in professional practice. Emphasis is given to emergency preparedness, public health improvement and disease prevention. The evolving roles of pharmacists in providing patient care and disease-management services to vulnerable populations and reducing health disparities in access to care are introduced. In particular, the role of pharmacists in improving public health, the charge for pharmacy in the United States public health service and interprofessional opportunities for pharmacists in public health initiatives such as Healthy People 2020 are explored. Prerequisites: PHRM6401 Professional Pharmacy Practice I: Health Care Delivery, PHRM7301 Biostatistics, PHRM7302 Epidemiology and Study Design Evaluation, PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology and PHRM8301 Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes.

PHRM8303
3 Credits
Research Methods and Data Analysis
This course provides students an opportunity to acquire research experiences in the field of health services research. Students will build upon their research projects under the supervision of the faculty. A team-based learning approach will be utilized to foster an interactive learning experience. In this elective course, students will develop critical-thinking, problem-solving and decision-making skills. Prerequisite: PHRM7301 Biostatistics.

PHRM8401
3 Credits
Pharmacists' Careers in Pharmaceutical Industry
This course is designed for doctor of pharmacy students considering an internship, experiential rotation, additional degree options and/or postgraduate training, in preparation for a career within the pharmaceutical industry. Health care has undergone significant change within the past two decades with the advent of various managed-care delivery models, the growing influence of federal and state governments as purchasers, health care reform, increasing regulatory and patent complexities and dramatic innovation and adoption of technology in every facet of people’s lives. In many emerging health care models, pharmacists are taking a more influential role on the health care team and this trend will likely continue. However, in some of
the more traditional pharmacy-practice settings, the supply of pharmacists is outpacing demand. The result of the current employment landscape is that more student pharmacists than ever before are exploring nontraditional practice settings including the pharmaceutical industry. The pharmaceutical industry incurring all the organizations that support it offers exciting and professional challenges and opportunities for pharmacist graduates. Consistent with changing roles of pharmacists in traditional health-care practice settings, the industry has also undergone significant changes resulting in a growing diversity of positions that are being filled by pharmacists throughout the commercialization process of pharmaceutical products. This course will explore various aspects of pharmaceutical commercialization from development and regulatory approval to marketing and sales strategies through life-cycle management. Each functional department will be described and discussed with a focus on the roles, responsibilities and opportunities for pharmacists to successfully contribute and achieve high levels of professional satisfaction. Prerequisites: PHRM6301 Medical Communication and Technical Writing and PHRM6401 Professional Pharmacy Practice I: Health Care Delivery.

PHRM6402 2 Credits Professional Pharmacy Practice IV: Pharmacy Leadership and Management Pharmacy practice does not exist in isolation; organizational structures and cultures have an impact on the contemporary practice of pharmacy within an organization with various stakeholders taking an interest and having a voice in the professional practice of pharmacy. To be effective, pharmacists will need to be aware of a variety of managerial issues they will likely face as practitioners. As a complement to the clinical and professional expertise pharmacy students develop by completing integrated pharmacotherapy, population health and previous professional pharmacy-practice courses, this course introduces basic administrative, business, managerial and leadership principles necessary for the effective and efficient delivery of patient-care goals. Application of these principles to pharmacy practice includes budgetary and financial considerations, marketing principles, personnel management, customer service, continuous quality assessment and performance improvement related to both improved value propositions and improved patient safety, as well as the use of technology in pharmacy practice. Risk management and the impact of compliance with state and federal laws and regulations and quality standards proposed by accrediting agencies on pharmacy management and leadership are explored. Prerequisites: PHRM6401 Professional Pharmacy Practice I: Health Care Delivery; PHRM6402 Professional Pharmacy Practice II: Communication in Health Care; and PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.

PHRM8403 3 Credits An Introduction to Lean Six Sigma This course introduces pharmacy students to the concepts and methods of Lean Six Sigma (LSS). LSS is a method that relies on effective teamwork to improve performance by decreasing waste and creating a lean enterprise. A framework of both Lean and Six Sigma tools will be covered providing a roadmap and diagnosis for workflow improvements and reduction in variability. The skills learned in this class will build capabilities that can help improve workflow and reduce errors in the pharmacy setting and organize processing in the pharmaceutical industry. Prerequisite: PHRM7301 Biostatistics. Co-requisite: PHRM8402 Professional Pharmacy Practice IV: Pharmacy Leadership and Management.

PHRM8404 3 Credits Medication Safety While medication therapy has become the mainstay of disease treatment and prevention, errors involving medications can result in patient harm and death. This course expands on knowledge acquired in PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology and PHRM8301 Pharmacoeconomics and Health Outcomes related to medication safety and the technology and tools used in error prevention. The student will also conduct case-study analyses of actual adverse drug events which include both medication errors and adverse drug reactions that have occurred in both the hospital and community-pharmacy settings. Prerequisites: PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology and PHRM8301 Pharmacoeconomics and Health Outcomes.

PHRM8405 3 Credits Medical Spanish for the Pharmacy Professional This course prepares students to be effective listeners and communicators using the Spanish language with the objective to actively engage with Hispanic patients to facilitate medication utilization and adherence. Triage terminology and basic pharmacy vocabulary will be introduced in addition to self-care specific medical language relative to each chapter in the text Spanish for the Medical Professional (i.e. fever, cough, cold, etc). Active engagement techniques and essential competencies will be practiced via role-playing. Phrases and questions required for physical assessments in addition to aspects encompassing Hispanic Cultural Competencies will also be covered. Students will also be introduced to the National CLAS (Culturally and Linguistically Appropriate Services) Standards in order to provide a better understanding of the social and cultural aspects of the Hispanic community influencing beliefs and behaviors.

PHRM8700 0 Credits Beyond the Curriculum/Preparing Practitioners (1) In the first of the two-semester course sequence, students will have an opportunity to continue to engage in programs to learn more about the emerging areas of pharmacy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. Assessment of readiness to enter the world of professional pharmacy and career guidance for traditional and nontraditional pharmacist roles will be introduced. Prerequisites: PHRM7700 Beyond the Curriculum: Expanding Horizons (1) and PHRM7701 Beyond the Curriculum: Expanding Horizons (2).

PHRM8701 1 Credit Beyond the Curriculum/Preparing Practitioners (2) In this course, students will have an opportunity to continue to engage in programs to learn more about the emerging areas of pharmacy in order to gain a deeper understanding of the evolving roles of pharmacists and the areas in which they can practice. Assessment of readiness to enter the world of professional pharmacy and career guidance for traditional and nontraditional pharmacist roles will be provided. Prerequisites: PHRM7700 Beyond the Curriculum: Expanding Horizons (1) and PHRM7701 Beyond the Curriculum: Expanding Horizons (2).

PHRM8802 3 Credits Health Information Exchange and Security This course will provide an overview of the methods, issues and challenges surrounding the transmission, storage and preservation of health information data, including an overview of the regulatory processes that oversee exchange and security of medical information (i.e., HIPAA, Joint Commission) and a discussion on the concerns around disclosure, accountability and liability involving storage and transmission of data.

PHRM8803 3 Credits Electronic Medical Records Management An introductory overview of computer-based medical record systems, including introductions to data entry and processing, health systems standards and regulations, data modeling, ethical and legal concerns, visualization and output of data and other topics involved in the management and processing of medical data.
This course provides an overview of the systems and databases used within a health care information system, including database architecture, reporting and querying, data optimization. Prerequisite: PHRM7801 Informatics and Information Systems.

PHRM8805  
3 Credits  
System Management and Planning  
This course provides an overview of the challenges and strategies of management within health care organizations and discusses the roles that informatics and information systems play in providing necessary data, information and organization to each of the major components within the organization. Discussion on how to be an effective leader and manager, and how to provide valued insight and information to document cost savings, efficiency, projected and increased return on investment and potential organizational adjustments and improvements will take place. Prerequisite: PHRM7801 Informatics and Information Systems.

PHRM8806  
3 Credits  
Project Management  
The purpose of this course is to integrate the essential components of project planning and management with health care information systems for health care leaders. The course will outline the process for developing, implementing and evaluating project plans as well as integration of communication and project life-cycle theory. Prerequisite: PHRM7401 Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology.

PHRM8807  
3 Credits  
Human Factors in Informatics  
Human Factors is a behavioral science with applications in almost every field, including ergonomics, software design, medical-device development and health care. By definition, this discipline is concerned with the interaction between humans and the systems with which they perform work. Increasingly, the processes that health care workers navigate are technologically laced and data-driven. This presents a perfect area for the expert informaticists to liaise. This course will investigate deeply how people interact with technology and data. Through comprehensive study, future informaticists will identify how best to apply technology to health care processes, how to manage change, best practices in data exposition and useful instructional design techniques. While the bulk of this course deals with how people interact with technology, the class will also explore how programmatic reporting of outcomes influences the technologies and actions taken in health care. A focused exploration of mortality, readmissions and preventable harm will complement the practical use of technology students will be learning in other courses in the informatics sequence.

PHRM8810  
3 Credits  
Medical and Clinical Report Writing  
This course provides a basic overview of the necessary means of communication for the clinical research professional, including methods for documentation, presentation of data and reporting of results. Focused attention will be paid to developing approaches for communication that allows for effective information transfer to a broad and diverse set of audiences, including patients, physicians, nurses, pharmacists, researchers and the general public. Prerequisite: PHRM7302 Epidemiology and Study Design Evaluation. Note: For pharmacy students only.

PHRM8811  
2 Credits  
Ethics of Health Care Research  
The student will examine the ethical issues that confront health care providers and patients. The medical, scientific, moral and socioeconomic bases of these issues and the decision-making process that providers and patients engage in are analyzed. Topics include informed consent, the role of institutional review boards, euthanasia and the allocation of scarce resources.

PHRM8812  
3 Credits  
Clinical Trial Research Administration  
This course provides a focused overview on the logistic and operational factors in conducting and completing a clinical research study. This includes discussion on the responsibilities and relationships for each of the professionals and parties involved in bringing the study from conceptualization through implementation and into the phase of data evaluation and report writing.

PHRM8821  
3 Credits  
Regulatory Compliance for Pharmaceuticals  
This course will review the regulatory pathways for drugs, biologics, biosimilars, medical devices and other pharmaceutical and biotechnology areas of awareness. Discussions on compliance strategies, risks and processes within each framework will provide insight into the challenges (financial, ethical and procedural) facing each industry and area.

PHRM8822  
3 Credits  
U.S. Regulatory New Drug Application Submission and Dossier Preparation  
This course will review steps and consideration in preparing a New Drug Application (NDA) submission to the U.S. Food and Drug Administration (FDA). Students will become knowledgeable on terminology used in NDA submission process in an electronic (e) Common Technical Document (CTD) format, Extensive Markup Language (XML) backbone, portable document format (PDF) file, structured product labeling format (SPL) for U.S. package-insert labeling, what area and statistical analysis systems (SAS) transport files. The course will provide a fundamental understanding of the different types of NDAs to file for under Section 505 of the Federal Food and Drug and Cosmetic Act for marketing authorization in the United States and describe the components and essential documents necessary for inclusion in an NDA submission. Students will learn how to consider key sections and data within the U.S. NDA submission for consideration of global regulatory submissions outside of the U.S. by using the CTD format and International Conference on Harmonization (ICH) principles.

PHRM9101  
5 Credits  
Advanced Pharmacy Practice Experience (APPE) I: Community  
This is an advanced practice experience course building on the student’s prior knowledge and practice in the community-care setting. The student will spend full-time hours (40 plus hours per week) for five weeks focusing on patient-centered pharmacy practice in a community-pharmacy setting. Acquisition of new knowledge and skills in providing primary patient care and development of confidence in clinical decision making and managing individual and population care is the goal of this practice course. This course prepares students to be critical thinkers who will continually build their knowledge across the curriculum as they engage in practice experiences.

PHRM9102  
5 Credits  
Advanced Pharmacy Practice Experience (APPE) II: Institutional  
This advanced institutional pharmacy practice experience will provide students with the opportunity to apply knowledge acquired during the didactic portion of the curriculum and build upon skills and competencies gained through earlier introductory pharmacy practice experiences. With a focus on the central pharmacy and distributive areas of an inpatient pharmacy, students will participate in clinical, distributive and administrative functions of pharmacists. Throughout the experience, students will engage in all aspects of hospital/health system pharmacy, including the medication-use process, quality assurance, medication safety, interprofessional collaboration, observation and/or participation in sterile and nonsterile product preparation and patient-care activities. Through this hands-on experience, the student will progress from the
student-pharmacist level to developing the competencies necessary to become a practicing pharmacist accountable for pharmacist-delivered, patient-centered care. 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.

**PHRM9103**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care**

This is an advanced pharmacy practice experience focusing on the application of didactic course work and acquired patient-care skills to the care of ambulatory-care patients. Students will be active participants in the delivery of high-quality care to patients through patient counseling, drug-therapy monitoring and the development of patient-education material. Students will collaborate with other health care professionals as active participants in the drug therapy decision-making process. Acquisition of new knowledge and skills in providing primary patient care and development of confidence in clinical decision making is the goal of this practice course. Students are expected to be present at the site for a minimum of eight hours a day, five days per week for five consecutive weeks. Students must adhere to the schedule established by the preceptor.

**PHRM9104**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) IV: Acute Care**

This acute-care pharmacy practice experience will enable students to integrate skills and knowledge gained during the didactic portion of the curriculum and apply this knowledge and skills to optimize drug-therapy management and medication safety in an acute-care medical setting. Students will establish their understanding of the role of a pharmacist as a clinical provider and as an integrated member of the health care team. Students will evaluate and identify medication-related problems and formulate clinical solutions to provide care for patients in an acute-care setting. Students will contribute to effective patient-care delivery while simultaneously gaining an appreciation and respect for the roles of each health professional within an interprofessional team. Throughout the course, students will be exposed to a variety of disease states and differing levels of medical acuity. Students will utilize their knowledge of therapeutics and health disparities to communicate with patients and health care providers to positively impact patient outcomes, prevent adverse events and assure safe medication use. 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.

**PHRM9201**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice I**

The five-credit advanced community advanced pharmacy practice experience surrounds various aspects of medication dispensing encompassing the delivery patient-centered care and effective medication management. The primary focus of this experience is patient assessment, counseling and education, medication therapy, disease-state management and documentation of patient information and interventions. The Advanced Community Advanced Pharmacy Practice Elective Experience is a five-credit, full-time (40 hours per week for five weeks) course affording students a pharmacy-practice setting in which to further develop their skills and competencies acquired in their introductory community experience. This experience contributes to the integration of clinical knowledge and skills with the basics of medication dispensing and control.

**PHRM9202**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Practice II**

The five-credit community practice advanced pharmacy practice experience surrounds various aspects of medication dispensing encompassing the delivery of patient-centered care and effective medication management. The primary focus of this experience is patient assessment, counseling and education, medication therapy, disease-state management and documentation of patient information and interventions. This full-time (40 hours per week for five weeks) course affords students a pharmacy-practice setting in which to further develop their skills and competencies acquired in their introductory community experience. This experience contributes to the integration of clinical knowledge and skills with the basics of medication dispensing and control.

**PHRM9203**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care I**

The five-credit ambulatory care advanced pharmacy practice experience affords students the ability to enhance their skills and competencies in the provision of medication-therapy management and pharmaceutical care in an ambulatory/outpatient clinical setting. The experience emphasizes appropriate identification, resolution and prevention of drug-related problems, as well as effective communication with patients and interprofessional allied health professionals. Competencies enhanced and acquired include patient counseling and education, drug information, written and verbal communication, assessment and documentation of interventions, patient-care services and therapy and the appreciation for the pharmacist’s role in patient-centered care and promotion of rational and effective drug therapy.

**PHRM9204**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care II**

The five-credit ambulatory care advanced pharmacy practice experience affords students the ability to enhance their skills and competencies in the provision of medication-therapy management and pharmaceutical care in an ambulatory/outpatient clinical setting. The experience emphasizes appropriate identification, resolution and prevention of drug-related problems, as well as effective communication with patients and interprofessional allied health professionals. Competencies enhanced and acquired include patient counseling and education, drug information, written and verbal communication, assessment and documentation of interventions, patient-care services and therapy and the appreciation for the pharmacist’s role in patient-centered care and promotion of rational and effective drug therapy.

**PHRM9205**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding I**

The five-credit community compounding advanced pharmacy practice experience is an elective rotation in a community pharmacy specializing in compounding extemporaneous (patient-specific) drug products. In addition to the preparation and compounding of patient-specific dosage forms, the experience will also encompass the provision of medication-therapy management and individualized medication instructions to enhance medication compliance.

**PHRM9206**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Community Compounding II**

The five-credit community compounding advanced pharmacy practice experience is an elective rotation in a community pharmacy specializing in compounding extemporaneous (patient-specific) drug products. In addition to the preparation and compounding of patient-specific dosage forms, the experience will also encompass the provision of medication-therapy management and individualized medication instructions to enhance medication compliance.

**PHRM9207**

*5 Credits*

**Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management I**

The five-credit medication therapy management advanced pharmacy practice experience is an
elective clinical rotation affording students the ability to acquire and enhance essential competencies and skills in the identification, prevention and resolution of medication-related problems in addition to effective methods in patient and interprofessional communication to optimize therapeutic outcomes. Medication-therapy management skills developed encompass comprehensive medication review, patient education, written and verbal communication skills and assessment and documentation of medication-related services and therapies.

PHRM9208
5 Credits
Advanced Pharmacy Practice Experience (APPE) V: Elective – Medication Therapy Management II
The five-credit medication therapy management advanced pharmacy practice experience is an elective clinical rotation affording students the ability to acquire and enhance essential competencies and skills in the identification, prevention and resolution of medication-related problems in addition to effective methods in patient and interprofessional communication to optimize therapeutic outcomes. Medication-therapy management skills developed encompass comprehensive medication review, patient education, written and verbal communication skills and assessment and documentation of medication-related services and therapies.

PHRM9209
5 Credits
Advanced Pharmacy Practice Experience (APPE) V: Elective – HIV/AIDS I
The five-credit HIV/AIDS advanced pharmacy practice experience is a clinical elective rotation that introduces the student to the care and treatment of patients in the various stages of the disease state. Since many patients with HIV/AIDS experience numerous complications as their disease progresses, students will learn how to prevent and/or treat these complications in this specific patient population. This rotation may take place in an inpatient or outpatient setting.

PHRM9211
5 Credits
Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I
The five-credit home infusion advanced pharmacy practice experience is an elective clinical rotation in a setting that provides home health care services. The student will acquire and enhance competencies and skills surrounding the pharmacist’s responsibilities in preparation of home-parenteral products including home-parenteral nutrition, home chemotherapy, hospice-care products and medications and necessary medical device equipment for the patient to be managed at home. The experience will also include involvement in participation in home-infusion assessment activities, inventory and quality control of products and patient-discharge consultations along with exposure to various infusion pumps and related home-care parenteral devices utilized in the home-infusion environment.

PHRM9212
5 Credits
Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion II
The five-credit home infusion advanced pharmacy practice experience is an elective clinical rotation in a setting that provides home health care services. The student will acquire and enhance competencies and skills surrounding the pharmacist’s responsibilities in preparation of home-parenteral products including home-parenteral nutrition, home chemotherapy, hospice-care products and medications and necessary medical device equipment for the patient to be managed at home. The experience will also include involvement in participation in home-infusion assessment activities, inventory and quality control of products and patient-discharge consultations along with exposure to various infusion pumps and related home-care parenteral devices utilized in the home-infusion environment.

PHRM9301
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I
The five-credit Hospital Advanced Pharmacy Practice Experience is an inpatient hospital rotation which provides a setting for the provision of pharmaceutical care encompassing medication-management process relative to medication-order entry, preparation, distribution and control of medications, medication interventions, monitoring and control affording the integration of critical thinking problem-solving clinical skills and interprofessional communication.

PHRM9302
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice II
The five-credit Hospital Advanced Pharmacy Practice Experience is an inpatient hospital rotation which provides a setting for the provision of pharmaceutical care encompassing medication-management process relative to medication-order entry, preparation, distribution and control of medications, medication interventions, monitoring and control affording the integration of critical thinking problem-solving clinical skills and interprofessional communication.

PHRM9303
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care I
The five-credit acute care advanced pharmacy practice experience is an elective clinical rotation providing students an opportunity to provide medication-therapy management and pharmaceutical care to adult patients in an inpatient acute-care environment. The acute care experience prepares the student to evaluate drug-therapy problems from a patient-centered care perspective engaging in interprofessional collaboration to gain an appreciation for the wide variety of disease states and therapeutic problems encountered routinely which encompass clinical management and monitoring of patients’ disease states and medication therapy.

PHRM9304
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Acute Care II
The five-credit acute care advanced pharmacy practice experience is an elective clinical rotation providing students an opportunity to provide medication-therapy management and pharmaceutical care to adult patients in an inpatient acute-care environment. The acute care experience prepares the student to evaluate drug-therapy problems from a patient-centered care perspective engaging in interprofessional collaboration to gain an appreciation for the wide variety of disease states and therapeutic problems encountered routinely which encompass clinical management and monitoring of patients’ disease states and medication therapy.

PHRM9305
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care I
The five-credit long-term care advanced pharmacy practice experience is an elective clinical rotation enabling students to acquire and enhance skills and competence in the distribu-
tion of medication; provision of medication-therapy management; and consulting services to residents of nursing home facilities, subacute care and assisted-living facilities, psychiatric hospitals, hospice and home- and community-based care.

PHRM9306
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Long Term Care II
The five-credit long-term care advanced pharmacy practice experience is an elective clinical rotation enabling students to acquire and enhance skills and competence in the distribution of medication; provision of medication-therapy management; and consulting services to residents of nursing home facilities, subacute care and assisted-living facilities, psychiatric hospitals, hospice and home- and community-based care.

PHRM9307
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease I
The five-credit infectious disease advanced pharmacy practice experience is an elective clinical rotation affording students the ability to acquire and enhance competency and proficiency in the medical management of patients with infectious diseases in the hospitalized setting.

PHRM9308
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Infectious Disease II
The five-credit infectious disease advanced pharmacy practice experience is an elective clinical rotation affording students the ability to acquire and enhance competency and proficiency in the medical management of patients with infectious diseases in the hospitalized setting.

PHRM9309
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology I
The five-credit hematology/oncology advanced pharmacy practice experience is an elective clinical rotation enabling students to acquire and enhance competencies and skills encompassing the provision of pharmaceutical care for oncology patients. The student will gain an in-depth knowledge and understanding of antineoplastics, toxicity management, supportive/palliative care and administrative oncology pharmacist functions surrounding patient-centered oncology medication management. This rotation may be completed in an acute-care setting or an ambulatory-care setting.

PHRM9310
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Oncology II
The five-credit hematology/oncology advanced pharmacy practice experience is an elective clinical rotation enabling students to acquire and enhance competencies and skills encompassing the provision of pharmaceutical care for oncology patients. The student will gain an in-depth knowledge and understanding of antineoplastics, toxicity management, supportive/palliative care and administrative oncology pharmacist functions surrounding patient-centered oncology medication management. This rotation may be completed in an acute-care setting or an ambulatory-care setting.

PHRM9311
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care I
The five-credit critical care advanced pharmacy practice experience is a clinical elective rotation enabling students to acquire and enhance competencies in patient medical management in the intensive-care unit of a hospital. The experience will encompass experiences in pharmacotherapy management of medical, surgical and trauma patients exposing students to a multidisciplinary-team approach actively demonstrating the importance of interprofessional communication and working collaboratively with physicians, nurses and respiratory therapists and other health care professionals.

PHRM9312
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Critical Care II
The five-credit critical care advanced pharmacy practice experience is a clinical elective rotation enabling students to acquire and enhance competencies in patient medical management in the intensive-care unit of a hospital. The experience will encompass experiences in pharmacotherapy management of medical, surgical and trauma patients exposing students to a multidisciplinary-team approach actively demonstrating the importance of interprofessional communication and working collaboratively with physicians, nurses and respiratory therapists and other health care professionals.

PHRM9313
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology I
The five-credit cardiology advanced pharmacy practice experience is an elective clinical rotation that will develop and enhance the student's ability to make rational decisions surrounding proficient use of cardiovascular medications affecting the cardiovascular system. The student will acquire specialized knowledge encompassing major cardiovascular disease states, invasive and noninvasive cardiovascular diagnostic techniques and the pharmacology, pharmacokinetics and the clinical use of cardiac drugs. This rotation setting is primarily inpatient, but may be based in an ambulatory setting or a combination of both.

PHRM9314
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Cardiology II
The five-credit cardiology advanced pharmacy practice experience is an elective clinical rotation that will develop and enhance the student's ability to make rational decisions surrounding proficient use of cardiovascular medications affecting the cardiovascular system. The student will acquire specialized knowledge encompassing major cardiovascular disease states, invasive and noninvasive cardiovascular diagnostic techniques and the pharmacology, pharmacokinetics and the clinical use of cardiac drugs. This rotation setting is primarily inpatient, but may be based in an ambulatory setting or a combination of both.

PHRM9315
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health I
The five-credit behavioral health advanced pharmacy practice experience is an elective clinical rotation offering students the opportunity to provide medication-therapy management to mentally ill patients in an inpatient acute care or outpatient setting. The student will collaborate interprofessionally with members of the mental health care team and engage in patient monitoring, therapeutic decisions regarding drug therapy, patient-medication counseling and provision of drug information to team members. The behavioral health APPE provides students an opportunity to actively communicate with the mental health care team and their patients in an effort to understand the impact and effects of psychiatric medication.

PHRM9316
5 Credits
Advanced Pharmacy Practice Experience (APPE) VI: Elective – Behavioral Health II
The five-credit behavioral health advanced pharmacy practice experience is an elective clinical rotation offering students the opportunity to provide medication-therapy management to mentally ill patients in an inpatient acute care or outpatient setting. The student will collaborate interprofessionally with members of the mental health care team and engage in patient monitor-
ing, therapeutic decisions regarding drug therapy, patient-medications counseling and provision of drug information to team members. The behavioral health APPE provides students an opportunity to actively communicate with the mental health care team and their patients in an effort to understand the impact and effects of psychiatric medication.

**PHRM0517**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Transitions of Care I**
This five-credit elective will grant students the opportunity to participate in the emerging field of transitions of care, which is intended to improve continuity of care from the inpatient setting to the home. A primary goal of this experience is to reduce 30-day readmission rates by targeting high-risk populations including patients with congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), atrial fibrillation, uncontrolled diabetes, uncontrolled hypertension, multiple medications, as well as patients with insurance issues, medication compliance and/or dietary challenges. By providing the patient with education, tools for adherence to diet and medications and helping patients and/or caregivers to coordinate social and medical necessities, the patients are enabled to remain healthy and medically stable once discharged from the hospital. 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.

**PHRM0519**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Nutrition Support I**
This five-credit elective will focus on enteral nutrition (total enteral nutrition and medication administration via feeding tubes) and parenteral nutrition (clinical and compounding). By working with the interdisciplinary team, including nurses, speech-language pathologists, dietitians, prescribers and others, the student pharmacist will manage adult inpatients (medical, surgical and critically ill) receiving nutrition support enterally or parenterally. The student pharmacist may also manage NICU and pediatric patients receiving nutrition support. Note that nutrition support is NOT nutrition. This rotation is not intended for student pharmacists interested in oral nutrition, such as body building, herbal supplementation, diets and so on. The definition of nutrition support can be found online at the American Society of Parenteral and Enteral Nutrition (ASPEN) at: http://www.nutritioncare.org/About_Clinical_Nutrition/What_is_Nutrition_Support_Therapy/. 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.

**PHRM0520**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Nutrition Support II**
This five-credit elective will focus on enteral nutrition (total enteral nutrition and medication administration via feeding tubes) and parenteral nutrition (clinical and compounding). By working with the interdisciplinary team, including nurses, speech-language pathologists, dietitians, prescribers and others, the student pharmacist will manage adult inpatients (medical, surgical and critically ill) receiving nutrition support. Note that nutrition support is NOT nutrition. This rotation is not intended for student pharmacists interested in oral nutrition, such as body building, herbal supplementation, diets and so on. The definition of nutrition support can be found online at the American Society of Parenteral and Enteral Nutrition (ASPEN) at: http://www.nutritioncare.org/About_Clinical_Nutrition/What_is_Nutrition_Support_Therapy/. 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.

**PHRM0521**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Emergency Medicine I**
This five-credit elective will focus on exposing students to the role of the clinical pharmacist in the emergency department. Under preceptor supervision, students will have the opportunity to respond to adult and pediatric emergencies, perform antimicrobial stewardship interventions, serve as a drug-information resource, provide patient counseling and medication reconciliation, review patient cases for optimization of therapy, monitor for clinical response and verify medication orders. 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.

**PHRM0522**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Emergency Medicine II**
This five-credit elective will focus on exposing students to the role of the clinical pharmacist in the emergency department. Under preceptor supervision, students will have the opportunity to respond to adult and pediatric emergencies, perform antimicrobial stewardship interventions, serve as a drug-information resource, provide patient counseling and medication reconciliation, review patient cases for optimization of therapy, monitor for clinical response and verify medication orders. 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.

**PHRM0523**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VI: Elective – Drug Information I**
This five-credit drug information advanced pharmacy practice experience affords students the experience to acquire skills and competencies necessary to competently and efficiently receive questions, identify relevant information and provide evidence-based recommendations surrounding appropriate drug therapy to pharmacists and other health care professionals. Emphasis is placed on the overall processing of drug-information requests encompassing initial inquiries, collection of background information, systematic drug searches and provision of critical analysis of medical literature. The student will develop and enhance knowledge and understanding of relevant practice resources and the development of critical evaluation skills in the provision of drug information. Opportunities may be presented for students to become involved with drug evaluation for formulary consideration and inclusion, quality assurance/
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information II

This five-credit drug information advanced pharmacy practice experience affords students the experience to acquire skills and competencies necessary to competently and efficiently receive questions, identify relevant information and provide evidence-based recommendations surrounding appropriate drug therapy to pharmacists and other health care professionals. Emphasis is placed on the overall processing of drug-information requests encompassing initial inquiries, collection of background information, systematic drug searches and provision of critical analysis of medical literature. The student will develop and enhance knowledge and understanding of relevant practice resources and the development of critical evaluation skills in the provision of drug information. Opportunities may be presented for students to become involved with drug evaluation for formulary consideration and inclusion, quality assurance/ drug-usage evaluation activities, news publications, scholarly activities and Pharmacy and Therapeutics Committee support.

PHRM9402
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information II

Advanced Pharmacy Practice Experience (APPE) VII: Elective – Drug Information II

The five-credit drug information advanced pharmacy practice experience affords students the experience to acquire skills and competencies necessary to competently and efficiently receive questions, identify relevant information and provide evidence-based recommendations surrounding appropriate drug therapy to pharmacists and other health care professionals. Emphasis is placed on the overall processing of drug-information requests encompassing initial inquiries, collection of background information, systematic drug searches and provision of critical analysis of medical literature. The student will develop and enhance knowledge and understanding of relevant practice resources and the development of critical evaluation skills in the provision of drug information. Opportunities may be presented for students to become involved with drug evaluation for formulary consideration and inclusion, quality assurance/ drug-usage evaluation activities, news publications, scholarly activities and Pharmacy and Therapeutics Committee support.

PHRM9403
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety I

The five-credit medication safety advanced pharmacy practice experience is an elective rotation that will enable students to become familiar with the key principles utilized in hospitals, health systems and medical device and pharmaceutical companies to improve medication safety. The rotation is designed to expose students to medication-safety nomenclature, key principles, safety devices and available resources. Students will participate in various activities designed to improve their working knowledge and experience with medication-safety concepts. The rotation will provide the student opportunities in which to apply acquired and enhanced knowledge to reduce patient-safety risks, optimize the safe function of medication-management systems and align pharmacy services with national initiatives that measure and reward quality performance and improve medication safety for patients.

PHRM9404
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medication Safety II

The five-credit medication safety advanced pharmacy practice experience is an elective rotation that will enable students to become familiar with the key principles utilized in hospitals, health systems and medical device and pharmaceutical companies to improve medication safety. The rotation is designed to expose students to medication-safety nomenclature, key principles, safety devices and available resources. Students will participate in various activities designed to improve their working knowledge and experience with medication-safety concepts. The rotation will provide the student opportunities in which to apply acquired and enhanced knowledge to reduce patient-safety risks, optimize the safe function of medication-management systems and align pharmacy services with national initiatives that measure and reward quality performance and improve medication safety for patients.

PHRM9405
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I

The five-credit managed care advanced pharmacy practice experience is an elective clinical rotation in which the student will acquire and enhance competencies and skills in the application of managed-care pharmacy principles relative to pharmacoconomics and cost-effective, medication-therapy management within contemporary managed-care health systems. This rotation may take place at health insurance, pharmacy benefits management (PBM) organizations as well as other sites providing formula management and evaluation.

PHRM9406
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care II

The five-credit managed care advanced pharmacy practice experience is an elective clinical rotation in which the student will acquire and enhance competencies and skills in the application of managed-care pharmacy principles relative to pharmacoconomics and cost-effective, medication-therapy management within contemporary managed-care health systems. This rotation may take place at health insurance, pharmacy benefits management (PBM) organizations as well as other sites providing formula management and evaluation.

PHRM9407
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Specialty Pharmacy I

The five-credit specialty pharmacy elective is designed to offer the student experience in a specialty-pharmacy practice setting which provides services above and beyond those typically offered at the community-practice level as part of their standard of care. The student will engage in acquiring competencies in specialty pharmacy areas encompassing adherence/compliance management, benefits investigation, interprofessional communication with prescribing physicians, dispensing of specialty pharmaceuticals and shipping coordination, enrollment in patient-assistance programs, financial assistance, patient education and medication-adverse-effect counseling, patient monitoring for safety and efficacy, payer and/or manufacturer reporting, proactive patient outreach for prescription refill and renewal, prior authorization assistance in order to collect and analyze patient information for the development of evidence-based treatment plans in the specialty-pharmacy practice settings.

PHRM9408
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Specialty Pharmacy II

The five-credit specialty pharmacy elective is designed to offer the student experience in a specialty-pharmacy practice setting which provides services above and beyond those typically offered at the community-practice level as part of their standard of care. The student will engage in acquiring competencies in specialty pharmacy areas encompassing adherence/compliance management, benefits investigation, interprofessional communication with prescribing physicians, dispensing of specialty pharmaceuticals and shipping coordination, enrollment in patient-assistance programs, financial assistance, patient education and medication-adverse-effect counseling, patient monitoring for safety and efficacy, payer and/or manufacturer reporting, proactive patient outreach for prescription refill and renewal, prior authorization assistance in order to collect and analyze patient information for the development of evidence-based treatment plans in the specialty-pharmacy practice settings.

PHRM9409
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I

The five-credit advanced medical devices and patient safety elective is designed to offer the student experience in a medical-device company whose products and services encompass the provision of safe and efficacious medical devices impacting patient safety.

PHRM9410
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety II

The five-credit advanced medical devices and patient safety elective is designed to offer the student experience in a medical-device company whose products and services encompass the provision of safe and efficacious medical devices impacting patient safety.
various experiences within a medical-device company whose products and services encompass the provision of safe and efficacious medical devices impacting patient safety.

PHRM9501
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Public Health I
The five-credit public health advanced pharmacy practice experience is an elective pharmacy rotation which provides the students with opportunities to participate in specified public health activities with an identified public health partner. Experiences in the rotation will introduce students to and expand their knowledge of pertinent principles and practices of public health impacting pharmacist practitioners. Experiences are intended to prepare and motivate new practitioners to participate in partnerships serving the vested public health interests.

PHRM9502
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Public Health II
The five-credit public health advanced pharmacy practice experience is an elective pharmacy rotation which provides the students with opportunities to participate in specified public health activities with an identified public health partner. Experiences in the rotation will introduce students to and expand their knowledge of pertinent principles and practices of public health impacting pharmacist practitioners. Experiences are intended to prepare and motivate new practitioners to participate in partnerships serving the vested public health interests.

PHRM9503
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Industry I
The five-credit industry advanced pharmacy practice experience is an elective rotation affording the student the opportunity to acquire knowledge and understanding of various responsibilities of the industry pharmacist. The experience will involve student observation and engagement in various activities surrounding the drug industry, such as research and development, manufacturing quality control, clinical trials, medical affairs, marketing and regulatory affairs.

PHRM9504
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Industry II
The five-credit industry advanced pharmacy practice experience is an elective rotation affording the student the opportunity to acquire knowledge and understanding of various responsibilities of the industry pharmacist. The experience will involve student observation and engagement in various activities surrounding the drug industry, such as research and development, manufacturing quality control, clinical trials, medical affairs, marketing and regulatory affairs.

PHRM9505
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Research I
The five-credit research advanced pharmacy practice experience is an elective rotation designed to provide students opportunities to acquire and enhance experiences in research design and development, performance of experiments, data collection and analysis, peer-review processes and animal- or human-research regulations.

PHRM9506
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Research II
The five-credit research advanced pharmacy practice experience is an elective rotation designed to provide students opportunities to acquire and enhance experiences in research design and development, performance of experiments, data collection and analysis, peer-review processes and animal- or human-research regulations.

PHRM9507
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Marketing I
The five-credit marketing advanced pharmacy practice experience is an elective rotation affording students interested in the pharmacy marketing arena to become familiar with various marketing activities directed toward establishing, developing and maintaining successful customer and patient relationships. In the organizational setting, students will acquire knowledge surrounding promotional programs, direct mailings, customer database oversight and educational training materials. In the patient-care pharmacy setting, students will be exposed to relationship marketing relative to attracting, maintaining and enhancing patient relationships and educational materials to create mutual benefit for the pharmacist and patient.

PHRM9508
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Marketing II
The five-credit marketing advanced pharmacy practice experience is an elective rotation affording students interested in the pharmacy marketing arena to become familiar with various marketing activities directed toward establishing, developing and maintaining successful customer and patient relationships. In the organizational setting, students will acquire knowledge surrounding promotional programs, direct mailings, customer database oversight and educational training materials. In the patient-care pharmacy setting, students will be exposed to relationship marketing relative to attracting, maintaining and enhancing patient relationships and educational materials to create mutual benefit for the pharmacist and patient.

PHRM9509
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Patient Advocacy I
The five-credit patient advocacy advanced pharmacy practice experience is an elective rotation in which the student gains knowledge and understanding in the various beneficial medication and health-related services provided to the public positively impacting human and community health care needs. The student will work with various community organizations providing health care to clients in a variety of settings such as free clinics, community health centers, refugee/migrant health centers, homeless shelters.

PHRM9510
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Patient Advocacy II
The five-credit patient advocacy advanced pharmacy practice experience is an elective rotation in which the student gains knowledge and understanding in the various beneficial medication and health-related services provided to the public positively impacting human and community health care needs. The student will work with various community organizations providing health care to clients in a variety of settings such as free clinics, community health centers, refugee/migrant health centers, homeless shelters.

PHRM9511
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Health Care Organization Management I
The five-credit health care organization management advanced pharmacy practice experience is an elective pharmacy rotation that provides experience in national or local pharmacy association activities and operations, interorganizational
Pharmacy

PHRM9512
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Health Care Organization Management II

The five-credit health care organization management advanced pharmacy practice experience is an elective pharmacy rotation that provides experience in national or local pharmacy association activities and operations, interorganizational affairs, government affairs, health and education policy, institutional research and related programmatic fields. Pharmacy students will acquire knowledge and understanding from participation in the management activities of professional organizations as they work to balance the needs of their members and simultaneously represent pharmacy to other constituencies encompassing third-party payers and governmental agencies.

PHRM9515
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics I

The five-credit informatics advanced pharmacy practice experience is an elective rotation which focuses on the fundamentals of pharmacy informatics such as pharmacy automation technology and information systems in a hospital setting. This rotation is beneficial to students who are interested in hospital pharmacy practice or those interested in specializing in pharmacy informatics.

PHRM9514
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics II

The five-credit informatics advanced pharmacy practice experience is an elective rotation which focuses on the fundamentals of pharmacy informatics such as pharmacy automation technology and information systems in a hospital setting. This rotation is beneficial to students who are interested in hospital pharmacy practice or those interested in specializing in pharmacy informatics.

PHRM9516
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Management II

The five-credit management elective is designed to offer the student advanced experience in the management of pharmacy practice in various settings. Students will be expected to apply knowledge and skills in order to manage inventory; contracts; reimbursement; information; risk; and human resources, including scheduling, salaries and performance evaluations.

PHRM9517
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Regulatory I

The five-credit regulatory advanced pharmacy practice experience is an elective rotation designed to offer the student a practice setting to learn about the regulatory processes surrounding drug discovery, development, pharmacoeconomics, biosimilars, regulatory affairs, managed markets, portfolio management and strategic marketing of a new pharmaceutical drug to better understand the issues facing the challenges of delivering a new drug on the market.

PHRM9518
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Regulatory II

The five-credit regulatory advanced pharmacy practice experience is an elective rotation designed to provide students opportunities to acquire and enhance experiences in research design and development, performance of experiments, data collection and analysis, peer-review processes and animal- or human-research regulations.

PHRM9900
2 Credits
Pharmacy Capstone

This course will focus on reviewing and integrating all knowledge and skills acquired through 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.
Psychology • Industrial/Organizational

**Psychology**

*Florham Campus*

These programs are offered under the auspices of the department of psychology and counseling, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

**Industrial/Organizational Psychology (M.A.)**

*See this page.*

**Organizational Behavior Concentration**

*See page 205.*

The programs and courses offered by the department of psychology and counseling are designed to meet the needs of students who wish to prepare for a career in various professional areas of psychology and counseling such as consulting, research, teaching and working in different organizational settings. In addition, programs and courses also may be taken by those students who wish to develop a background for subsequent work leading to a doctorate.

**Requirements for Graduate Psychology Programs Leading to a Master of Arts Degree**

1. Satisfactory completion of the core requirements. Students are required to complete core requirements before additional courses may be taken. However, during the semester in which core requirements are being completed, a maximum of one additional noncore course may be taken, subject to departmental approval. Students in the organizational behavior concentration may be required to enroll in two Saturday classes each semester.

2. Satisfactory completion of a minimum of 36 credits for graduate majors in industrial/organizational psychology. Students are required to maintain a minimum overall grade point ratio of 3.00 and must not earn more than one C-level grade (C or C+) throughout graduate course work. Students who earn two grades of less than B- or one F grade will be subject to dismissal.

3. A written comprehensive examination of the candidate’s knowledge of his or her field of specialization is required at the end of the industrial/organizational graduate psychology program. Students are eligible to take this exam during the semester in which they are enrolled in their last graduate courses. The comprehensive examination may only be taken twice. Failure to pass the comprehensive examination, either in part or in full, will result in dismissal from the program. Students in the organizational behavior concentration may be waived from completing the comprehensive examination.

4. All graduate programs in psychology should be completed within a period of five years. Applications for extensions of this period are subject to departmental approval.

**Industrial/ Organizational Psychology (M.A.)**

The graduate program in industrial/organizational psychology is designed to provide a comprehensive background in applied psychology that will enable participants to work in organizational settings, continue their education at the doctoral level or augment their professional development as managers and leaders in organizational positions. The orientation and experience in independent research (as reflected in the optional thesis) or the concentration in organizational behavior provides a solid background for enabling them to function more independently as professionals in organizational settings, as well as compete more successfully for admission to doctoral programs.

This program is offered under the auspices of the department of psychology and counseling, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, New Jersey.

**Admission Requirements**

1. Graduation from an accredited college or university with at least 24 credits in psychology, including at least one course each in statistics and experimental psychology.

2. A minimum grade point ratio of 3.00 in the major field of study.

3. Submission of undergraduate transcript(s).

4. Submission of an official score report for the Graduate Record Examinations (GRE) General Test taken within the last five years.

5. Students without an undergraduate major in psychology may be admitted upon successful completion of a general psychology course and an undergraduate psychology statistics course. (Neither of these carry credit toward the M.A. degree.)

6. Three letters of recommendation.

7. In some cases, a personal interview may be required.

Applicants to the low-residence organizational behavior concentration may, under certain circumstances, substitute professional work and life experience in lieu of the requirement for an undergraduate psychology major and GRE scores.

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Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

Requirements for the Master of Arts Degree

Students in the M.A. in industrial/organizational psychology program must register for a minimum of two classes in the fall and spring semesters. Exceptions to this policy may be granted in unusual circumstances. Courses must be taken in the required sequence (see department for sequence list). A total of 36 credits is required.

Organizational Behavior Concentration (Low-residence Program)

The organizational behavior concentration of the M.A. in industrial/organizational psychology is targeted toward working professionals who have attained, or aspire to, leadership positions. The curriculum is designed to develop personal leadership competencies and to apply them in a variety of organizational contexts. Students work with skilled instructors and personal mentors to strengthen and apply their experience and knowledge.

All classes are held from 9 a.m. to 4 p.m. on alternate Saturdays. Much of the course work is conducted and completed online. Intensive year-round scheduling makes it possible to complete the entire 36-credit program within 30 months. Most classes include a "mentoring" component, where each student works one-on-one with an experienced business or professional faculty mentor and coach to enhance their personal skills and careers.

In addition to 24 credits of foundation courses (see Requirements for the Master of Arts degree, courses with two asterisks), PSYC6301 Group Dynamics and Team Leadership, PSYC6302 Organizational Psychology, PSYC6303 Research Methods and Design, PSYC6304 Personnel Selection, PSYC6305 Psychometrics, PSYC6306 Behavioral Consulting in Organizations, PSYC6307 Human Resources Development and PSYC7745 Leadership Studies, students are required to complete the following 12 credits:

Certificate in Organizational Leadership

The department currently offers an 18-credit Certificate in Organizational Leadership as part of the M.A. in industrial/organizational psychology program with a concentration in organizational behavior. Successful students in this program will be offered the opportunity of continuing their studies in the M.A. program if they wish, with full credit for completed courses.

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.

Psychology

Department of Psychology and Counseling

PSYC6300 3 Credits

Psychological Statistics

A comprehensive survey of the theoretical and practical aspects of descriptive and inferential statistical procedures — z tests, t tests, analysis of variance, correlation and regression analysis and nonparametrics. Emphasis is on why and when to use the various procedures as well as on the interpretation of statistical results. Prerequisite: undergraduate statistics or permission of instructor.

Fall

PSYC6301 3 Credits

Group Dynamics and Team Leadership

This course focuses on how individuals come together in work teams to accomplish mutual goals. The various roles of team members and team leaders are explored in depth. Topics include team leadership behavior, building effective teams, managing and resolving conflict, quality team management and other aspects of interpersonal relationships within the corporate/business structure. Students learn how to ensure team success as both team leaders and participants. Emphasis is placed on understanding and influencing group and team effectiveness.

PSYC6302 3 Credits

Organizational Psychology

A seminar on the effects of organizational variables upon individual and group behavior. Systematic theories of organizational culture, organizational structure and function will be examined and related to current organizations.

Fall

PSYC6303 3 Credits

Research Methods and Design

This course is designed to explore research design in industrial/organizational psychology. It includes experimental, quasi-experimental and correlational designs; measurement issues; and the ethics of conducting research, sampling and matching the appropriate statistics to various designs. Students will learn how to understand and carry out the entire research process.
PSYC6304
3 Credits
Personnel Selection
A comprehensive survey of current practices in employee recruitment, selection, evaluation, compensation and development. Special emphasis is placed on the use of psychological tests and interviewing techniques. Current topics such as fair employment testing are reviewed.
Spring

PSYC6305
3 Credits
Psychometrics
A critical survey of the philosophy and techniques of measurements or appraisal, with emphasis given to the administration, interpretation and evaluation of intelligence, achievement, interest, aptitude and objective personality instruments.
Fall

PSYC6306
3 Credits
Behavioral Consulting in Organizations
This course provides an overview of the role of the psychologist in organizational settings. Emphasis is on establishing relationships with organizational personnel, interpreting research results, the uses of the in-house psychologist vs. the outside consultant, the use of focus groups and surveys and the process of organizational change.
Fall

PSYC6307
3 Credits
Techniques of Interviewing
A comprehensive survey of the strategies and techniques necessary for conducting an effective interview. Emphasis is placed on developing an understanding of the factors that facilitate and debilitate communication in three basic types of interviewing situations: the counseling, selection and research interview.
Fall

PSYC6308
3 Credits
Human Resources Development
An overview of the processes and programs organizations use to train and develop employees and managers. Traditional methods such as role-playing and case studies are practiced and compared to techniques such as organization development practices. Students will experience the role of both trainer and trainee. Emphasis will focus on effective ways of changing actual behavior.
Spring

PSYC7700
3 Credits
Industrial/Organizational Internship
This blended course involves a semester-long internship placement related to industrial/organizational psychology in an approved local organization. Students work a minimum of 15 hours per week in either a paid or unpaid setting and participate in the course. An onsite supervisor will provide mentoring and evaluation of the student’s work in addition to the course instructor's mentoring and evaluation. The purpose of the internship is to provide practical training within the field and an opportunity to apply knowledge gained through course work. The final academic paper will be a project culminating the semester-long experience.

PSYC7740
3 Credits
Individual Behavior Studies
A comprehensive survey of the psychological aspects of work behavior in the organization and work-group settings. The determinants of job satisfaction and productivity are explored in depth. The role of personality and other factors in understanding and predicting human behavior in the work setting form the focus of intensive readings. Emphasis is placed on understanding and influencing human behavior.

PSYC7741
3 Credits
Corporate Communication (Selected Topics)
The content and curriculum for this course is selected from topics and areas of current interest to organization-development professionals. Possible topics for the future are: the role of the leader in changing organizational culture, leadership challenges of an intergenerational workforce and leadership in difficult economic times or the changing role of leaders in society.

PSYC7744
3 Credits
Strategic Planning and Crisis Management
This course examines the stress-related behaviors commonly found in organizational settings and the strategies used to prevent and/or cope with them. On an organizational level, students explore reactions and remedies to organizational crises such as sabotage, product failure and liability, downsizing and natural or man-made catastrophes. On the individual level, students examine the effects of layoff, outplacement, extreme workloads, ineffective supervision, burnout and other “hazardous” situations in the workplace. Strategies for managing organizational and individual crises are developed.

PSYC7745
3 Credits
Leadership Studies
This course reviews and integrates the research and popular wisdom on leadership through readings, films, case studies and discussions on the elements of successful management and leadership. Students examine various theories of leadership and characteristics of prominent past and current leadership in politics, business, the arts and warfare. They learn to identify and refine their own leadership styles for maximum impact.

PSYC7746
3 Credits
Leadership Tutorial
Students select one or more faculty mentors and work with them to implement personal developmental objectives through one-on-one meetings and a series of directed readings and projects that are analyzed and applied. Emphasis is on coaching and mentoring for personal success.

PSYC7747
3 Credits
Advanced Special Projects
Each student chooses a business challenge relevant to his or her own current work experiences and, with a faculty member, develops a plan to analyze behavioral strategies and techniques relevant to the problem. Specific action plans, including background, research methodologies, data collection and analysis and intervention strategies, will be formulated and completed. It is expected that students will use the full range of knowledge and experiences gained from the program in completing this assignment.

PSYC7803, PSYC7804
6 Credits (3 Credits Each Semester)
Research and Thesis
A program of selected research tailored to the interest and capability of the individual student under the guidance of a departmental faculty member.
Fall or Spring
Psychology

Metro Campus

These programs are offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Clinical Psychology (Ph.D.)
See page 208.

Clinical Psychopharmacology (M.S.) Post-Doctoral
See page 212.

Forensic Psychology (M.A.)
See page 213.

General/Theoretical Psychology (M.A.)
See page 216.

Postbaccalaureate Respecialization Program in Psychology
See below.

School Psychology (Psy.D.)
See page 217.

School Psychology (M.A.)
See page 222.

Postbaccalaureate Respecialization Program in Psychology (18 credits)
The Postbaccalaureate Respecialization Program in Psychology is designed for individuals trained in other professions (e.g., law, business or natural sciences) who are interested in pursuing careers in mental health and/or applied areas of psychology. The program’s goal is to provide the appropriate background necessary to seek admission to graduate programs in psychology. The course work includes undergraduate and graduate offerings and covers essential concepts and theories, psychopathology, statistics and research methods. The course content provides sufficient background to prepare for the psychology section of the Graduate Record Examinations (GRE).

Admission Requirements
1. Proof of an undergraduate baccalaureate degree (diploma or undergraduate transcript from an accredited college or university).
2. An undergraduate cumulative grade point ratio of at least 3.00.
3. Three letters of recommendation and
4. A personal statement detailing the applicant’s reason for respecialization and his/her interests in the field of psychology.

Application materials are kept to a minimum so that students can apply at any time. GRE scores are not necessary for acceptance. Once application materials are complete, admission decisions typically occur within two weeks. Students may begin course work in the fall or spring semester or the summer session subsequent to their admission into the track.

Personalized Advisement
Upon acceptance, students will be assigned a faculty adviser who will monitor their progress and provide guidance as to specific areas of study and careers in psychology.

Upon completion of 18 credits of prescribed courses, students will be eligible to apply to a wide range of graduate programs in psychology. The adviser will assist in the application process by offering guidance as to the selection of appropriate graduate programs and will oversee the completion of application materials.

Although GREs are not necessary for application to the respecialization track, both the general and psychology GRE exams are required for most master’s and doctoral programs in psychology.

Typical Course Sequence
If the typical course sequence is followed, students will be in a position to apply to master’s and doctoral programs within one year of admission to the track. However, if students choose to enroll on a part-time basis, registration for at least one course per semester is required.

Fall Semester Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC1103</td>
<td></td>
</tr>
<tr>
<td>General Psychology* (Undergraduate)</td>
<td>3</td>
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<tr>
<td>PSYC2201</td>
<td></td>
</tr>
<tr>
<td>Statistics (Undergraduate)</td>
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Spring Semester Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>PSYC3202</td>
<td></td>
</tr>
<tr>
<td>Experimental Psychology (Undergraduate)</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Electives**</td>
<td>6</td>
</tr>
</tbody>
</table>

Transfer Credits

Upon acceptance to any of the School of Psychology’s graduate-degree programs, students may transfer up to 9 graduate credits from the respecialization track. Transfer of credits to other universities may be possible, but will be at the discretion of the individual institution to which the student applies.

*Students who have already taken PSYC1103 General Psychology can substitute a different undergraduate course.
**M.A.-level courses such as PSYC6111 Theories of Personality, PSYC6114 Psychopathology and PSYC7125 Applied Social Psychology (this list is not exhaustive).
Psychology • Clinical (Ph.D.)

Clinical Psychology (Ph.D.)

This is a four-year plus internship, full-time program that follows the scientist-practitioner model in which both internship and dissertation are combined with individualized areas of specialization. The program’s goal is to prepare skilled psychologists who are capable of appreciating and conducting sound research. The program has received full accreditation from the American Psychological Association (APA).

The scientist-practitioner orientation emphasizes academic content areas of psychology and views clinical training as growing directly out of such foundations in psychological theory and research. It reflects the school’s belief that a competent and effective clinician is best described as a scientist-practitioner, well-versed not only in clinical techniques and methods but also in the theoretical and research-based underpinnings of these approaches.

As an expression of the scientist-practitioner model, the sequence of courses emphasizes a thorough preparation in theoretical psychology and methodology. The sequence becomes the matrix against which students receive applied training in clinical psychology. The first year of the program exposes students to basic psychological theory of measurement prior to the course work in clinical applications. For example, foundations of clinical psychology and psychopathology are explored prior to behavioral and personality assessment.

Concurrent with the work in assessment, students will begin study of the traditional psychotherapies. The third year of course work expands students’ knowledge of treatment procedures, specialized populations and related medical topics. Finally, the student will have completed four semesters of statistics and research design by the end of the third year.

By the end of the third year, students are prepared to begin writing their dissertation. Each student selects a mentor from the faculty, and that mentor serves as chairperson of the dissertation committee. Adhering to certain guidelines, the chairperson and the student select the remaining three to four members of the committee. All students will also have taught a three-credit course before they finish the program.

This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements and Information

For an application to this program visit the School of Psychology website at http://ucoll.fdu.edu/surveys/phdapply.php or call (201) 692-2315.

1. This program is open to holders of undergraduate degrees in psychology or the required number of psychology credits. The requirement of 18 psychology credits preferably includes introductory psychology, developmental psychology, statistics, experimental psychology and social psychology.

2. Students are selected from a pool of academically qualified applicants who can contribute to the diversity of the student body.

3. Acceptance decisions are based on outstanding undergraduate and (where applicable) graduate academic performance, high scores on the General Test and Subject Test in Psychology of the Graduate Record Examinations, evidence of scholarly activity such as publications and paper presentations, prior work experience and letters of recommendation.

4. Tuition for full-time course work (at least 12 credits but no more than 16.5 credits per semester with practicum assignment) is on a flat-fee basis of $40,398.00 per year as of 2017–2018. When students are on part-time status (less than 12 credits per semester), the fee is set at the regular graduate rate per credit. In addition, students authorized to begin their dissertation will be charged $4,849.00 per semester for two semesters. Thereafter, students will be required to register for dissertation maintenance ($490.00*) per semester until the dissertation is complete. Students are further charged $250.00* per semester for two semesters of internship.

Requirements for the Ph.D. Degree

1st Semester

PSYC6112 Clinical Research Methods and Psychometrics

*This fee is a 2017–2018 fee. New tuition and fee charges for 2018–2019 will be announced in the spring of 2018. Please check with the Office of Enrollment Services for current charges.

2nd Semester

PSYC6114 Psychopathology
PSYC6116 History and Systems
PSYC6118 Computer Applications in Statistics Lab
PSYC6132 Developmental Issues in Clinical Psychology
PSYC6180 First-year Clinical Practicum I

3rd Semester

PSYC7110 Research Design and Analysis I
PSYC7113 Psychodynamic Psychotherapy
PSYC7121 Cognitive and Behavioral Therapy
PSYC7180 Second-year Clinical Practicum I
PSYC Advanced Special Topics (elective)

4th Semester

PSYC7111 Research Design and Analysis II
PSYC7125 Applied Social Psychology
PSYC7130 Biological Bases of Behavior
PSYC7181 Second-year Clinical Practicum II
PSYC Advanced Special Topics (elective)

5th Semester

PSYC7120 Diversity Issues in Clinical Psychology
PSYC7133 Learning, Cognition and Emotion
PSYC8129 Psychopharmacology
PSYC8180 Third-year Clinical Practicum I
PSYC Advanced Special Topics (elective)

6th Semester

PSYC8181 Third-year Clinical Practicum II
PSYC9124 Advanced Research Seminar
PSYC9138 Professional Development
PSYC Advanced Special Topics (elective)
PSYC Advanced Special Topics (elective)

7th Semester

PSYC9111 Dissertation (Clinical Psychology)

8th Semester

PSYC9111 Dissertation (Clinical Psychology)
Students will be required to participate in a full-time clinical internship approved by the program faculty. The internship may begin after the student has completed the courses listed under the first six semesters and submitted an approved dissertation proposal. Usually, the dissertation will be the focus in the fourth year and internship in the fifth year.

Students will be required to pass a series of comprehensive examinations. Those failing the exam will be given an opportunity to retake it. Those failing three times will be discharged from the program. Should they elect, those students will be evaluated for matriculation into the master's degree program in general/theoretical psychology and, upon completion of the requirements of that program, they will be awarded the master's degree.

Students who do not enter the program with a master's degree in which they completed a thesis must complete a review paper on an approved topic before they begin the third year or produce a publication or presentation on which they are the first author.

Ongoing annual evaluations of students will be conducted by the faculty using information from practicum-site supervisors, course instructors and research mentors or his/her delegate. Students will meet with the program director to receive feedback concerning these evaluations.

**Performance Requirements**

1. Students receiving two or more grades of C+ or lower in any combination of courses will be dropped from the program.

2. Students with a cumulative grade point ratio (CGPR) below 3.20 at the end of any year will be placed on academic probation for one year. At the end of the probation year, the CGPR must be at least 3.20 or the student will be dropped from the program.

3. Students will be dropped from the program for a proven, serious, negligent breach of the American Psychological Association Ethical Guidelines. Students also will be dropped from the program for cheating or plagiarism.

4. Students encountering serious psychological adjustment problems will be advised to seek professional counseling. If the problems are not ameliorated, the student may be asked to leave the program.

**Forensic Track**

An optional, add-on forensic track is available to students in the Ph.D. program who fulfill the following additional requirements:

1. Completion of at least one of the required clinical practica in a forensic setting.

2. Completion of at least two additional courses: PSYC6230 Introduction to Forensic Psychology and PSYC7230 Forensic Assessment and Prediction (an additional independent study is recommended).

3. Completion of a dissertation on a forensic topic. Track courses may incur additional fees if they render a student's credit load for a given semester above the allowable, flat-fee 16.5. Completion of the forensic track will be noted on the student's transcript.

**Course Offerings**

**Clinical Psychology (Ph.D.)**

School of Psychology

Students who are not in the Ph.D. program may take Ph.D. program courses with permission from the program director.

**1st Semester**

PSYC6112 3 Credits

**Clinical Research Methods and Psychometrics**

This course covers basic topics and issues in psychometrics and clinical psychology research. Topics will include scales of measurement, norms and standard scores, reliability (including interclinician reliability), psychometric validity (including diagnostic validity), experimental design validity (internal, external, statistical, construct), test and scale construction strategies (classical true score and item response theory), current clinical research objectives and designs, major threats to valid inferences in clinical research, experimental and statistical methods of control, the design of psychotherapy efficacy studies and the identification of clinically significant client changes.

PSYC6114 3 Credits

**Psychopathology**

Detailed consideration of psychopathology with respect to physiological, cognitive, motivational, affective and interpersonal variables and their roles in etiology, diagnosis, treatment and prognosis.

PSYC6116 3 Credits

**History and Systems**

Assessment of the historic development and current status of systematic paradigms in psychology. The influence of classical and contemporary philosophy will be considered in terms of paradigmatic development and the critical evaluation of psychological theory and psychology's place as a "special science" or as a natural science.

PSYC6118 1 Credit

**Computer Applications in Statistics Lab**

Introduces the student to software for statistical analysis, with an emphasis on SYSTAT.

PSYC6132 3 Credits

**Developmental Issues in Clinical Psychology**

Focuses on the importance and contribution of developmental factors to clinical issues: the role of cognitive, social and moral development; the effect of early learning on later development, including caregiver and child characteristics as well as the subsequent interactions; development from a life-span perspective; and family and cultural influences.

PSYC6180 3 Credits

**First-year Clinical Practicum I**

Conduct intake assessments and participate in a variety of in-house clinical projects sponsored and supervised by the clinical faculty.

**2nd Semester**

PSYC6122 3 Credits

**Personality Assessment**

Introduces the student to the domain of personality assessment. This includes a discussion of basic concepts and issues in the field of assessment, such as actuarial versus clinical prediction, the clinical utility of testing and the considera-
tion of diversity in the testing situation. The student is introduced to important measures of personality functioning, particularly the interpretation of MMPI profiles and the administration and scoring of Comprehensive System Ror-schachs.

PSYC6131
1.5 Credits
Behavioral Assessment

PSYC6133
3 Credits
Intellectual Assessment
Expertise in administration, scoring and interpretation of WPPSI, WISC, WAIS. Integration of intellectual evaluation and neuropsychology — in particular, brain lateralization, minimal brain lateralization, minimal brain dysfunction and learning disabilities. Writing evaluations, including referral questions and describing and integrating behavioral observations.

PSYC6160
3 Credits
Teaching Seminar
Emphasis on pedagogical issues including undergraduate-course preparation, preparation of course content, evaluation of student achievement, multicultural issues and academic honesty. Students will learn to teach in both traditional classroom and online environments. They will gain experience in lecturing, leading discussions (both in-class and online), use of audiovisual aids, syllabus preparation and test construction. Videotaping will be used to give students feedback and evaluate their progress.

PSYC6181
3 Credits
First-year Clinical Practicum II: Ethics
Participation in in-house clinical projects sponsored and supervised by the clinical faculty. Ethics and the APA ethical code of conduct is covered in depth. Students are required to pass an examination covering the most recent code of ethics.

PSYC6264
3 Credits
Introduction to Psychotherapy
This course provides for an understanding of the principal theories of counseling and psychotherapy, an understanding of the similarities and differences in the various major theories and techniques and for a development of the ability to evaluate the need for counseling and/or psychotherapy in problem areas. Prerequisite: PSYC6114 Psychopathology or PSYC6115 Child Psychopathology.

3rd Semester

PSYC7010
1 Credit
Psychoeducational Assessment
The primary goal of this course is to familiarize doctoral students in the clinical psychology program with background knowledge regarding conducting child psychoeducational testing, including expected child presentation during testing sessions (e.g., attention span, rapport with clinician); information regarding the home and school context; and interacting appropriately with parent, teachers and children. Students will be given opportunities to apply this knowledge through role play and case analysis.

PSYC7110
3 Credits
Research Design and Analysis I
Focuses on univariate models for the analysis of data of pure experiments, quasi-experiments and observational studies. Topics include univariate analysis of variance and covariance models for designs with between-subject and/or within-subject factors, predictive and explanatory applications of simple and multiple-regression analysis, path analysis. SYSTAT data analysis of archival data sets is demonstrated for most of the methods.

PSYC7113
3 Credits
Psychodynamic Psychotherapy
Theory and techniques of psychodynamic psychotherapy, emphasizing classical drive theory, relational/developmental and cognitive/representational perspectives. Classes focus on clinical techniques, research on psychodynamic processes and technical applications to specific psychopathologies.

PSYC7121
3 Credits
Cognitive and Behavioral Therapy
Extends the principles and methods of empirically based behavioral assessment to behavioral treatment in clinical settings. Treatment literature as it applies to specific psychiatric disorders and application of behavioral principles in the context of complex clinical situations.

PSYC7180
3 Credits
Second-year Clinical Practicum I
Interviewing, objective and projective assessment, intellectual evaluations, etc. Some therapy experience may be included. Some supervision by clinical faculty or by off-campus supervisors.

4th Semester

PSYC7111
3 Credits
Research Design and Analysis II
Focuses primarily on multivariate methods that have been used extensively in clinical research and on some methods whose use in clinical research has rapidly increased in the past few years. The former methods include principal-components analysis, factor analysis, multivariate analysis of variance and covariance, discriminant function analysis and linear classification functions. The latter methods include canonical correlation analysis, logistic regression analysis, logistic classification models, Bayesian classification, log-linear models, confirmatory factor analysis and structural equation modeling. SYSTAT data analysis of archival data sets is demonstrated for most of the methods.

PSYC7125
3 Credits
Applied Social Psychology
Developing understanding of social underpinnings of psychological phenomena. Topics include attitude formation, attitude change, prejudice and discrimination, altruism, attribution theory, emotions, research techniques and application of social psychology to clinical practice. Research project included.

PSYC7130
3 Credits
Biological Bases of Behavior
Functional neuroanatomy; neurophysiology and neuropharmacology, emphasizing the relationship of brain mechanisms and synaptic chemistry to behavior. Special topics include techniques for studying brain-behavior relationships; sensory and motor systems; homeostasis and regulation of internal states; emotions, aggression and stress; learning and memory; and the biological bases of mental illness.

PSYC7181
3 Credits
Second-year Clinical Practicum II
Interviewing, objective and projective assessment, intellectual evaluations, etc. Some therapy experience included.

5th Semester

PSYC7120
3 Credits
Diversity Issues in Clinical Psychology
Minority issues as they affect psychological testing and psychotherapy. Women’s issues, issues of color, religion, ethnicity, sexual orientation, differing physical abilities and age.
Psychology • Clinical (Ph.D.)

PSYC7153
3 Credits
**Learning, Cognition and Emotion**
This course provides an introduction to the cognitive and affective bases of behavior. Topics to be addressed include basic principles of learning theory and alternative theoretical perspectives on the nature of emotion. The nature of cognitive processes such as memory and decision making will also be addressed. The course is designed to be particularly relevant to the application of these topics to clinical psychology.

PSYC8129
3 Credits
**Psychopharmacology**
An overview of the pharmacologic actions and behavioral effects of psychotherapeutic medications. Special attention to chemical theories of mental illness and the use of psychotherapeutics in the treatment of mental disorders.

PSYC8180
3 Credits
**Third-year Clinical Practicum I**
Therapy, assessment and consultation at an advanced level.

**Electives**
Choose two from Electives.

*6th Semester*

PSYC8181
3 Credits
**Third-year Clinical Practicum II**
Therapy, assessment and consultation at an advanced level.

PSYC9124
3 Credits
**Advanced Research Seminar**
This course reviews and expands on intermediate and advanced-level analytic methods including tests of mediation and moderation in linear and nonlinear regression models, factor analysis, structural equation modeling and various approaches for longitudinal data. The course also covers integration of such techniques in the overall research process. Specifically, students will gain experience in reviewing and synthesizing literature to derive hypotheses, formulating study procedures and analytic plans to test hypotheses and presenting results in written and oral format. Prerequisites: PSYC7110 Research Design and Analysis I and PSYC7111 Research Design and Analysis II.

PSYC9138
3 Credits
**Professional Development**
This course will focus on the professional challenges and issues facing the rising clinical psychologist through several phases of training and professional development (e.g., internship, post-doctoral fellowships, early employment).

**Electives**
Choose two from Electives.

*7th Semester*

PSYC9111
3 Credits
**Dissertation (Clinical Psychology)**
An experimental research project required of all Ph.D. candidates in clinical psychology.

*8th Semester*

PSYC9111
3 Credits
**Dissertation (Clinical Psychology)**
An experimental research project required of all Ph.D. candidates in clinical psychology.

*9th Semester*

PSYC9112
0 Credits
**Dissertation Maintenance (Clinical Psychology)**
Continuation of the experimental research project required of all Ph.D. candidates in clinical psychology.

PSYC9113
0 Credits
**Internship (Clinical Psychology)**
Yearlong applied clinical experience at a psychological treatment agency or institution, required for Ph.D. candidates in clinical psychology.

*10th Semester*

PSYC9112
0 Credits
**Dissertation Maintenance (Clinical Psychology)**
Continuation of the experimental research project required of all Ph.D. candidates in clinical psychology.

PSYC9113
0 Credits
**Internship (Clinical Psychology)**
Yearlong applied clinical experience at a psychological treatment agency or institution, required for Ph.D. candidates in clinical psychology.

**Electives**

PSYC8114
3 Credits
**Neuropsychology**
Introduction to clinical neuropsychology. Review of functional neuroanatomy, basic neuroanatomical disorders and the assessment of the cognitive sequence of those disorders. Includes introduction to basic neuropsychological assessment batteries.

*PSYC8127*
3 Credits
**Clinical Child Psychology**
This course focuses on the diagnosis and treatment of clinical disorders first manifested in children and adolescents. Multiple modalities of treatment are introduced.

PSYC8145
3 Credits
**Advanced Cognitive Behavioral Therapy**
This course will cover new modalities of cognitive-behavioral therapy including cognitive therapy, motivational interviewing, mindfulness meditation and acceptance and commitment therapy. Emphasis will be placed on the theoretical underpinnings of these therapies, specific techniques, applied examples and practice through role-plays. Prerequisite: PSYC7121 Cognitive and Behavioral Therapy.

PSYC9143
3 Credits
**Advanced Psychodynamic Psychotherapy**
This course will focus on the contemporary psychodynamic treatment approaches to the personality disorders. Object relations and ego-psychology perspectives will be emphasized.

PSYC9145
3 Credits
**Seminar in Clinical Psychology**
A seminar for advanced doctoral and clinical master’s students using actual case material and devoted to diagnostic issues, treatment planning and treatment issues.

PSYC9160
3 Credits
**Advanced Personality Assessment**
Psychological assessment requires a synthesis of empiricism and art. This course is intended to increase understanding of the way in which this synthesis occurs. It combines discussion of topics of testing with case material as a means of enhancing skills in the field of psychological assessment.
Clinical Psychopharmacology (Postdoctoral M.S.)

The clinical psychopharmacology program in psychology is intended for psychologists who provide health care services and are interested in increasing their awareness of psychotropic medications. Topics covered include the anatomy and physiology of the nervous system, biological systems that may be impacted by psychotropic drugs and the practice of clinical psychopharmacology.

The program is designated as meeting the requirements for training in psychopharmacology as established by the American Psychological Association (APA). This model of training is also consistent with the APA model for didactic training in preparation for independent practice as a prescribing psychologist, should state legislatures choose to award such authority to the profession.

This program is offered online under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements

1. A doctoral degree in a discipline of psychology considered appropriate for the provision of health care services or a doctoral degree in another discipline of psychology plus evidence of completion of a respecialization program at a postdoctoral level relevant to status as a health care provider. Both the doctoral transcript and the respecialization certificate, if relevant, must come from an accredited college or university.

2. Candidates must be currently licensed as a psychologist in any state or be actively seeking licensure at the time of initiating the program.

3. Classes may only be taken on a non-matriculated basis with the permission of the program’s academic director.

4. Members of other health care professions may participate with completion of a terminal degree in their discipline, license as a health care provider and the permission of the program’s academic director.

5. The entire degree program must be completed within a three-year period.

6. After completion of their course work, students are eligible to participate in an elective supervised clinical experience.

Course Offerings

Clinical Psychopharmacology
School of Psychology

Required

PSYC 7910
Biological Foundations of Clinical Psychopharmacology I 3

PSYC 7915
Biological Foundations of Clinical Psychopharmacology II 3

PSYC 7920
Neuroscience 3

PSYC 7925
Neuropharmacology 3

PSYC 7930
Clinical Pharmacology 3

PSYC 7935
Professional Issues and Practice Management 3

PSYC 7940
Treatment Issues in Clinical Psychopharmacology: Affective Disorders 3

PSYC 7945
Treatment Issues in Clinical Psychopharmacology: Psychotic Disorders 3

PSYC 7950
Treatment Issues in Clinical Psychopharmacology: Anxiety Disorders 3

PSYC 7955
Treatment Issues in Clinical Psychopharmacology: Other Disorders 3

Elective

PSYC 7960
Clinical Psychopharmacology Practicum 0

2. Based on prior academic experience, students may waive some courses. However, the final four courses cannot be waived.

3. Students receiving two or more grades below B– will be terminated from the program.

4. Upon completion of the 10-course sequence, students must complete an exit examination and achieve a passing score to receive the master's degree. This exam may be taken a maximum of three times.

5. This course presents an integrated approach to the study of primary body systems as it relates to psychopharmacological practice (respiratory, cardiovascular and genitourinary) that includes anatomy, physiology and pathophysiology of a specific body system with the clinical applications (health assessment, physical examination, laboratory assessment) pertaining to that system.

PSYC 7920
Biological Foundations of Clinical Psychopharmacology II

PSYC 7925
Neuropharmacology

This course introduces the knowledge bases pertaining to pharmacology and psychopharmacology. It includes advanced study of neurotransmitter systems and other factors in the psychopharmacological treatment of mental disorders, as well as an introduction to classes of psychotropic medications.
PSYC7930
3 Credits
Clinical Pharmacology
This course presents major classes of drugs (excluding psychotropics) and their uses in clinical settings. It includes an examination of the social, cultural and behavioral aspects of prescribing medications.

PSYC7935
3 Credits
Professional Issues and Practice Management
This course reviews issues in prescribing from the perspective of a professional health care provider. Legal and ethical issues as well as standards of care ranging from informed consent to documentation are addressed. Interprofessional relationships and aspects of collaborative practice, as well as enhancement strategies such as computer-based aids, will provide learners with a solid foundation for the continued integration of psychopharmacology into their practices.

PSYC7940
3 Credits
Treatment Issues in Clinical Psychopharmacology: Affective Disorders
This course addresses issues of diagnosis/differential diagnosis; etiology/biological basis of affective disorders; and psychopharmacological treatment options, including mechanism of action, side effects, adverse reactions, polypharmacy, drug interaction and patient education. Disorders covered include major depression and the affective elements of bipolar disorder. Issues of diversity and development are considered.

PSYC7945
3 Credits
Treatment Issues in Clinical Psychopharmacology: Psychotic Disorders
This course addresses issues of diagnosis/differential diagnosis; etiology/biological basis of psychotic disorders; and psychopharmacological treatment options, including mechanism of action, side effects, adverse reactions, polypharmacy, drug interaction and patient education. Disorders covered include schizophrenia and the psychotic elements of bipolar disorder. Issues of diversity and development are considered.

PSYC7950
3 Credits
Treatment Issues in Clinical Psychopharmacology: Anxiety Disorders
This course addresses issues of diagnosis/differential diagnosis; etiology/biological basis of anxiety disorders; and psychopharmacological treatment options, including mechanism of action, side effects, adverse reactions, polypharmacy, drug interaction and patient education. Disorders covered include panic, phobias and generalized anxiety disorder. Issues of diversity and development are considered.

Elective
PSYC7960
0 Credits
Clinical Psychopharmacology Practicum
Field training in psychopharmacological prescriptive practice for licensed psychologists under the supervision of a licensed physician.

Forensic Psychology (M.A.)
The program is a one-and-a-half-year, full-time graduate program designed to provide students with the skills necessary to provide treatment interventions and assessment in a forensic setting and conduct forensic research.

The specific program objectives are to:
• Prepare students to provide specialized treatment and intervention in a forensic setting.
• Provide students with training in psychopathology, interviewing, forensic assessment and evaluation, clinical forensic practice and ethics.
• Provide students with knowledge and practical experiences designed to promote the development of professional skills required in multiple areas of forensic psychology.

The program will prepare students for careers as master’s-level forensic specialists in civil and criminal-justice settings, and provide students with exposure to multiple areas of forensic psychology, such as forensic assessment, criminal responsibility, interviewing and risk assessment. Secondly, the program will prepare students to pursue doctoral-level training in clinical psychology by providing numerous opportunities to participate in ongoing research projects.

This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. A bachelor’s degree from an accredited college or university.
2. Applicants must submit an official report for the General Test of the Graduate Record Examinations (GRE). The psychology subtest is not required. The schedule of testing dates can be obtained from Educational Testing Service, Princeton, New Jersey 08540.
3. Applicants must have taken introductory psychology, statistics and abnormal psychology.
4. Two letters of recommendation.
5. Students enrolling with prior graduate-level course work relevant to the curriculum may petition for waiver.
Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a nonmatriculated or nondegree basis.

**Requirements for the Master of Arts Degree**

1. The program is a 36-credit program, including a 3-credit externship, and encompasses three content areas of study: concepts of psychology, foundations of forensic psychology and applied knowledge/practical skills in forensic psychology. Students complete courses in graduate-level statistics and psychopathology before taking core courses. The courses in each content area are noted below.

2. Students receiving a grade below B in any graduate course will be placed on academic probation with the possibility of a reduced course load for the next regular semester. Students receiving a concurrent or subsequent grade below B will not be permitted to continue in the program. A grade point ratio of at least 3.00 must be maintained at all times to continue in the program.

**Curriculum**

<table>
<thead>
<tr>
<th>First Trimester (Fall)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC6114</td>
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<tr>
<td>Psychology</td>
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<td>PSYC6230</td>
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<tr>
<td>Introduction to Forensic Psychology</td>
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<tr>
<td>PSYC6231</td>
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<tr>
<td>Psychological Bases of Criminal Behavior</td>
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<tr>
<td>PSYC6130</td>
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<td>Interviewing Techniques</td>
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<tr>
<td>PSYC7230</td>
<td>3</td>
</tr>
<tr>
<td>Forensic Assessment and Prediction</td>
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<tr>
<td>PSYC7235</td>
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<tr>
<td>Criminal Responsibility and Competency</td>
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<td>Forensic Psychology Elective</td>
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<tr>
<td>PSYC6227</td>
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<tr>
<td>Clinical Practice in Forensic Context</td>
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<tr>
<td>PSYC7243</td>
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<td>Special Topics in Forensic Psychology</td>
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<th>Fourth Trimester (Fall)</th>
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<tr>
<td>PSYC7234</td>
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<tr>
<td>Ethical Issues in Forensic Practice</td>
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<tr>
<td>PSYC7240</td>
<td>3</td>
</tr>
<tr>
<td>Externship in Forensic Psychology</td>
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</table>

All students are required to take and pass a comprehensive examination at the conclusion of their course work, and only students who pass the comprehensive examination will be admitted to the degree. Interested students may elect to complete a master's thesis and must take PSYC7810 I.S. Master's Thesis (5 credits). These 3 credits may be substituted for one elective.

Note: PSYC7810 I.S. Master's Thesis may be taken as an elective in lieu of a comprehensive examination.

**Course Offerings**

Other psychology courses are described on pages 209–211, 216–217 and 220–222.

**Forensic Psychology (M.A.)**

**School of Psychology**

**Required**

PSYC6130 3 Credits  
**Interviewing Techniques**

Survey of interviewing principles and techniques as they relate to various counseling theories, with an emphasis on the clinical interview as a means for gathering pertinent information about a client in the context of conducting a forensic evaluation. Focuses on unique issues encountered within forensic contexts. Prerequisite: PSYC6114 Psychopathology.

PSYC6227 3 Credits  
**Clinical Practice in Forensic Context**

This course focuses on two main areas of clinical practice with forensic clients in secure settings and in the community. The two areas of focus are treatment (therapy, management and medication) with general offenders, sex offenders, juvenile offenders and offenders with major mental illness; and testing (structured personality tests, cognitive and neuropsychological tests, deception/malingering, diagnostic tests and trauma). Prerequisites: PSYC6114 Psychopathology and PSYC6230 Introduction to Forensic Psychology. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program or the clinical psychology Ph.D. forensic track.

PSYC6230 3 Credits  
**Introduction to Forensic Psychology**

Introduction to the application of psychological principles to legal (civil and criminal) problems. Review of historical and contemporary issues such as the interface of the mental health system and the criminal system, civil commitment, the insanity defense, diminished capacity, sentencing, capital punishment, competency to stand trial and use of research in court. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program (forensic or general/theoretical psychology).

PSYC6231 3 Credits  
**Psychological Bases of Criminal Behavior**

An in-depth analysis of research on the psychological bases and dynamics of criminal, aggressive and antisocial behavior. Review of multiple theoretical and explanatory aspects of criminal behavior, with emphasis on the relationships between psychopathological states, personality disorders, psychodiagnostics and antisocial behavior. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program (forensic or general/theoretical psychology).

PSYC7230 3 Credits  
**Forensic Assessment and Prediction**

Review of relevant measurements used in forensic assessment — assessment of risk of violence, psychopathology, malingering, personal injury, disability and child custody. A focus of the course is on heuristics of risk-related decision-making under uncertainty. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, forensic B.A./M.A. accelerated program or the clinical psychology Ph.D. forensic track.

PSYC7234 3 Credits  
**Ethical Issues in Forensic Practice**

This course focuses on ethical conflicts and dilemmas facing forensic psychologists when working within the legal system as evaluators, consultants or expert witnesses. Topics include standards of practice in forensic psychology, role of the expert witness, protection of rights of defendants, evaluating competency of defendants, confidentiality and duty to protect, refusal and consent to treat and more. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program (forensic or general/theoretical psychology).

PSYC7235 3 Credits  
**Criminal Responsibility and Competency**

This course focuses on the history of the insanity defense, procedures for assessing mental state, mental conditions that diminish capacity for “requisite intent,” the complex structure and assessment of malingering and assessment of mitigation. Prerequisite: PSYC6114 Psychopathology and PSYC6230 Introduction to Forensic Psychology. Note: Instructor approval...
required for students who are not in the M.A. in forensic psychology program, forensic B.A./M.A. accelerated program or the clinical psychology Ph.D. forensic track.

**PSYC7240**
3 Credits
**Externship in Forensic Psychology**
A supervised experience in the assessment, management and treatment of patients. Students obtain an approved externship at forensic sites including prisons, special treatment facilities, hospitals or rehabilitation centers. Students have the opportunity to specialize in their externship, working with populations such as juvenile offenders or with other special populations such as criminals with alcohol or substance-abuse disorders or with sex offenders. Course will be pass/fail.

**PSYC7242**
3 Credits
**Externship in Pro-Seminar**
The pro-seminar provides group supervision around clinical, treatment, ethical and other general-practice issues that arise during externship.

**PSYC7243**
3 Credits
**Special Topics in Forensic Psychology**
This course provides focused coverage of special populations and issues in the area of forensic psychology. Examples of topics include assessment and treatment to gain an understanding of issues specific to particular populations (e.g., juvenile offenders, female offenders, offenders with psychopathic traits), contexts (e.g., assessment of law enforcement personnel) and areas of forensic practice (e.g., criminal profiling). Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program (forensic or general/theoretical psychology).

**Electives**

**PSYC6228**
3 Credits
**Mental Health Law**
This course provides a general overview of mental health issues in the forensic context, including privileged communications, confidentiality, mental disorders in involuntary commitment, civil liability and competencies, diminished capacity and criminal responsibility, guardianships and conservatorships.

**PSYC6229**
3 Credits
**Psychological Analysis of Forensic Cases**
The course will introduce actual cases and facts and will probe, in depth, the presumptive underpinnings of the psychological, legal and ethical issues raised by the case. One case will be presented each week and active discussion of the psychological issues raised by the case will be expected. Cases have been selected to cover a broad range of challenging issues raised for forensic psychologists. Prerequisite: PSYC6230 Introduction to Forensic Psychology. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, B.A./M.A. accelerated program (forensic or general/theoretical psychology).

**PSYC7232**
3 Credits
**Juvenile Offenders**
This course focuses on the etiology, assessment, classification and treatment of the juvenile offender. Emphasis is placed on developmental, cognitive-behavioral and psychodynamic explanations and treatment approaches. The use of case studies is also emphasized in this course, and part of the course is devoted to reviewing and critiquing legal and institutional responses to juvenile crime.

**PSYC7234**
3 Credits
**Evaluation and Treatment of Sex Offenders**
This course focuses on the diagnosis, classification and treatment of sex offenders as well as issues confronting psychologists when working with this population, such as the interpersonal and intrapsychic dynamics of sex offenders. Presentation of case material is utilized in this course.

**PSYC7237**
3 Credits
**Forensic Issues in Family Court**
This course addresses the role of the mental health practitioner in family court as an expert, special master, mediator and custody evaluator. This course will focus on the impact of such complex issues as abuse, mental illness, medical problems, sexual preference and substance abuse on divorce, custody, placement and domestic-law issues.

**PSYC7238**
3 Credits
**Women and Crime**
This course explores the role of women as criminals, the capacity of women to engage in a wide range of criminal acts, including crimes that are “uniquely” committed by women and the response of the criminal justice system to women. Famous cases are included for illustrative purposes. The etiologic role of victimization will also be addressed.

**PSYC7239**
3 Credits
**Abuse in Intimate Relationships**
The focus of this course is on domestic violence and the response of the criminal justice system to managing spouse abuse, parent abuse and child abuse.

**PSYC7241**
3 Credits
**Psychology and Law Enforcement**
This course covers a range of topics concerned with the interface of law enforcement and psychology, including fitness-for-duty evaluations, pre-employment screening, special ethical issues, interview techniques, assessment of dangerousness, behavioral pattern analysis and threat analysis.
Psychology • General/Theoretical

General/Theoretical Psychology (M.A.)
The general/theoretical program in psychology is designed to meet the needs of students who wish to prepare for service in various scientific and professional areas of psychology and related fields or who are looking to strengthen their background in preparation for applying to doctoral programs. The program is expected to take two years to complete for full-time students, but can be completed on a part-time basis for those working full time.

This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements
1. A bachelor’s degree from an accredited college or university.
2. Applicants must submit an official score report for the Graduate Record Examinations (GRE). (The Subject Test in Psychology is not required.) The schedule of testing dates can be obtained from Educational Testing Service, Princeton, New Jersey 08540.
3. Applicants must have taken general/introductory psychology, statistics and experimental psychology/research methods or either the undergraduate or graduate level.
4. Three letters of recommendation. Applicants who have not completed all requirements for admission to the degree program may be permitted to enroll in classes for credit on a provisional, nonmatriculated or nondegree basis.

Requirements for the Master of Arts Degree
1. Satisfactory completion of a minimum of 36 credits in the courses approved for a graduate major in psychology. Of the 36 credits, 6 may be allowed for a thesis, but the writing of a thesis is at the option of the student.
2. The following courses comprise the core curriculum: PSYC6121 Statistics and Research Methods and PSYC6129 Research Methods and Psychometrics. Students should complete core requirements before progressing to other courses.
3. Students receiving two or more grades below B– in any graduate course will be placed on academic probation with the possibility of a reduced course load for the next regular semester. Students receiving a concurrent or subsequent third grade below B– will not be permitted to continue in the program. A grade point ratio of at least 2.75 must be maintained at all times to continue in the program.

Basic Requirements (6 credits)
PSYC6121 Statistics and Research Methods..........3
PSYC6129 Research Methods and Psychometrics.......................3

Specialization Requirements (15 credits)
Students will elect a minimum of 15 credits from the following list of courses.
PSYC6109 Social Psychological Applications........3
PSYC6111 Theories of Personality.........................3
PSYC6114 Psychopathology..............................3
PSYC6128 Computer Applications and Scientific Report Writing........3
PSYC7114 Learning, Motivation and Emotion........3
PSYC7122 Developmental Psychology...............3
PSYC7130 Biological Bases of Behavior...............3

Electives (15 credits)
Students, with an adviser’s approval, will elect an additional 15 credits to complete the required 36 credits. Up to 6 of these credits may consist of a master’s thesis. Several courses are offered jointly with the Ph.D. program.

In addition to the course requirements, candidates for the master’s degree must meet the following requirements:
1. All students are required to take and pass a comprehensive examination at the conclusion of their course work, and only students who pass the comprehensive examination will be admitted to the degree. If a student completes a master’s thesis, the comprehensive examination will be waived.
2. The graduate program of studies should be completed within a period of five years.

Course Offerings
Other psychology courses are described on pages 209–211.
A wide range of electives for the M.A. in general/theoretical psychology are available in consultation with the program director.

General/Theoretical Psychology (M.A.)
School of Psychology

PSYC6109 3 Credits
Social Psychological Applications

PSYC6111 3 Credits
Theories of Personality

PSYC6114 3 Credits
Psychopathology

PSYC6128 3 Credits
Computer Applications and Scientific Report Writing

PSYC7114 3 Credits
Learning, Motivation and Emotion

PSYC7122 3 Credits
Developmental Psychology

PSYC7130 3 Credits
Biological Bases of Behavior

Electives (15 credits)

Child Psychopathology
Examination of behavior disorders most likely to have childhood onsets or variants. Variables such as effects of age onset, treatment modalities that are age specific, approaches or techniques, recovery rates and adult correlates are considered.

PSYC6115 3 Credits

Statistics and Research Methods
Review of issues related to research design, psychometrics and descriptive and inferential statistics. Statistical topics include, but are not limited to, parametric techniques such as t-tests,
analysis of variance and simple and multiple regression analysis. Heavy emphasis will be placed on application of techniques using statistical software and interpretation of results. Prerequisite: PSYC2201 Statistics.

PSYC6128
3 Credits
Computer Applications and Scientific Report Writing
This course will cover the use of SPSS (Statistical Package for Social Sciences) statistical software and related programs (e.g., Excel) for data management, analysis and graphing. Emphasis will be placed on using the graphical interface of SPSS software, but the program syntax for various applications also will be covered. This course will also cover scientific report writing (i.e., summarizing SPSS output) with emphasis placed on APA (American Psychological Association) style. Prerequisite: PSYC6121 Statistics and Research Methods.

PSYC6129
3 Credits
Research Methods and Psychometrics
This course covers basic topics and issues in psychometrics and research design. In addition to a review of basic statistical concepts, topics include: classical true score theory and scale creation; scale reliability and validity assessment; experimental design validity (internal, external, statistical, construct); major threats to valid inferences in research; and ethical issues in behavioral research. Prerequisite: PSYC6121 Statistics and Research Methods.

PSYC7114
3 Credits
Learning, Motivation and Emotion
Survey of the experimental literature relating to these constructs. Emphasis placed on integrative theory involving brain function, reward and incentive as well as human cognitive process.

PSYC7122
3 Credits
Developmental Psychology
Childhood, adolescence and early to mid-adulthood, including major theories of development (Piaget, Freud and social learning theories), research and application. Special emphasis on research concerning the development of prosocial behavior, internalization and sex typing.

PSYC7125
3 Credits
Applied Social Psychology
Developing understanding of social underpinnings of psychological phenomena. Topics include attitude formation, attitude change, prejudice and discrimination, altruism, attribution theory, emotions, research techniques and application of social psychology to clinical practice. Research project included.

PSYC7810
0–3 Credits
I.S. Master’s Thesis
An experimental research project. Can be used in place of the master’s comprehensive examination.

PSYC7811
3–6 Credits
I.S. Master’s Clinical Practicum
Interviewing and assessment experience. Some therapy experience may be included.

PSYC7812
0–3 Credits
I.S. Master’s Thesis II
The continuation of an independent research project (chapters 3 and 4 of Thesis: Results and Discussion sections). Thesis can be used in place of master’s comprehensive examination.

School Psychology (Psy.D.)

The School of Psychology offers two tracks for the school psychology doctoral degree: a five-year full-time program (see this page) for applicants with a bachelor’s degree in psychology or a related field and an advanced program (see page 219) for those who already have a master’s degree and certification in school psychology. All classes for both programs are held late afternoon or evening.

School Psychology (Five-year Psy.D.)

The five-year school psychology doctoral program is an integration of theoretical and foundational knowledge and applied professional training for those committed to working with children and adolescents in schools and school-related settings. The program’s goal is to prepare individuals to assume leadership positions within schools, school-related and academic settings. The program prepares students for certification in school psychology and eligibility for licensure as a psychologist.

The program is a full-time program. Classroom experiences are integrated with field-based experiences in a multitude of settings, beginning in the first semester of study. Classes are held in late afternoon and evening, providing ample opportunity for practicum and research. The program’s eclectic orientation and wide range of course work provide education in research, consultation, assessment, prevention, program evaluation, neuropsychology and psychopharmacology. There are opportunities for students to work closely with program faculty to develop specialized areas of interest and research. During their fourth year of study, students are expected to complete a doctoral dissertation in the form of an original clinical investigation, a program evaluation, case study or meta-analysis. Students are also expected to successfully complete a comprehensive examination and the PRAXIS exam in school psychology.

The program culminates (fifth year) in a yearlong internship in a school or related...
clinical setting. Students are encouraged to apply for APA-approved internships. Stipends supporting half tuition are available for highly qualified students. The granting of a tuition stipend requires a commitment of 12 hours per week as a research assistant. This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements and Information
To apply for the five-year Psy.D. in school psychology program, check the FDU website (www.fdu.edu), call or write to the School of Psychology, Fairleigh Dickinson University, 1000 River Road, Teaneck, N.J. 07666-1914, (201) 692-2501.

Applications for admission to the five-year program should be submitted no later than February 15. Applications received after that date will be considered on a space-available basis only. Should an individual not yet be qualified for the Psy.D. program, that application will automatically be reviewed for the M.A. plus certification program.

Applicants to the five-year Psy.D. program should hold an undergraduate degree in psychology or related field with at least 18 credits in psychology beyond general psychology.

Applicants to the program must submit:
2. Transcripts from all academic institutions previously attended.
3. Official report of Graduate Record Examinations (GRE) scores for the General Test and the Subject Test in Psychology.
4. Three letters of recommendation from academic and/or professional references.
5. A typed statement of professional interests and goals.
6. Applicants will be selected, based on credential review, for a personal interview.
7. Transfer credits will be handled individually by the Program Committee.

Requirements for the Psy.D. Degree

First Semester

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Second Semester

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<td>Child Psychopathology</td>
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<tr>
<td>PSYC6129</td>
<td>Research Methods and Psychometrics</td>
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<td>PSYC7124</td>
<td>Developmental Child and Adolescent Psychology</td>
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<tr>
<td>PSYC7820</td>
<td>Introduction to School Learning</td>
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Third Semester

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<td>Introduction to Students with Disabilities in School and Community</td>
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<tr>
<td>PSYC7615</td>
<td>Child Assessment I with Practicum</td>
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<td>Child Assessment II with Practicum</td>
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<tr>
<td>PSYC8910</td>
<td>School-based Consultation with Practicum</td>
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Fourth Semester

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<td>Applied Social Psychology</td>
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<td>Child Neuropsychology</td>
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<td>PSYC8725</td>
<td>Prevention and Intervention with Children and Adolescents</td>
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Fifth Semester

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<tr>
<td>PSYC7145</td>
<td>Issues and Techniques in Research and Evaluation I</td>
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Sixth Semester

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<td>Issues and Techniques in Research and Evaluation II</td>
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<td>PSYC8721</td>
<td>Seminar in Child/Adolescent Intervention</td>
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<td>PSYC8930</td>
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<td>PSYC8951</td>
<td>Administration and Supervision in School Psychology</td>
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<td>PSYC9176</td>
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Summer

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Seventh Semester

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<td>PSYC9150</td>
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Eighth Semester

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<tr>
<td>PSYC9150</td>
<td>Internship (School Psychology)*</td>
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Note: PRAXIS Exam must be taken prior to graduation.

Course Descriptions
See “Course Offerings,” pages 220–222.

*Students may choose to postpone PSYC9150 Internship (School Psychology) until the fifth year. The fourth year may be used for dissertation. The goal would be dissertation completion prior to or in conjunction with internship.
School Psychology (Advanced Psy.D.)

The doctoral program in school psychology is an innovative, applied professional psychology program. The program builds on the master’s degree training and experiences of each student. Its goal is to prepare professionals who will be leaders in the design, evaluation, provision and supervision of comprehensive mental health and psychoeducational services to children, youths and families.

The program prepares students for eligibility for licensure as psychologists. Course work can be completed in two years, including summer sessions. Classes are held in the late afternoons and evenings. Therefore, students are able to work while in the program. Upon completion of their course work, students engage in research culminating in a doctoral dissertation. The research project may be in the form of an original applied clinical investigation, program evaluation, case study, meta-analysis or validation of a test or clinical procedure.

This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Admission Requirements and Information

To apply for the Psy.D. in school psychology program, write to the School of Psychology, Fairleigh Dickinson University, Metropolitan Campus, 1000 River Road, Teaneck, N.J. 07666-1914, or call (201) 692-2301 for an application. Applications for admission should be submitted no later than March 1. Applications received after that date will be considered only on a space-available basis.

Applicants to the advanced Psy.D. in school psychology program should hold a master’s degree and certification in school psychology. Candidates who are not certificated school psychologists will be required to take the necessary course work and field experience to obtain certification prior to admittance into the doctoral program.

Applicants to the program must submit:
2. Transcripts from all academic institutions previously attended.
3. Official report of Graduate Record Examinations (GRE) scores for the General Test and Subject Test in Psychology.
4. Three letters of recommendation from academic and/or professional references.
5. A typed statement of professional goals.
6. A representative work sample of current professional skills (e.g., psychological testing report, consultation or therapy summary, etc.).
7. Applicants will be required to complete a personal interview.
8. Transfer of graduate credits to this program is handled individually by the program director.

Requirements for the Advanced Psy.D. Degree

First Year

Fall Semester

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PSYC7145</td>
<td>Issues and Techniques in Research and Evaluation I</td>
<td>3</td>
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<tr>
<td>PSYC7651</td>
<td>Seminar in Professional School Psychology Practice and Ethics</td>
<td>3</td>
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<tr>
<td>PSYC8720</td>
<td>Seminar in Child/Adolescent Assessment</td>
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Spring Semester

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<tr>
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<td>Issues and Techniques in Research and Evaluation II</td>
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<tr>
<td>PSYC8721</td>
<td>Seminar in Child/Adolescent Intervention</td>
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<tr>
<td>PSYC8930</td>
<td>Advanced Consultation for School Psychologists</td>
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Second Year

Fall Semester

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<tr>
<td>PSYC8130</td>
<td>Pediatric Psychology</td>
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Spring Semester

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<tr>
<td>PSYC8951</td>
<td>Administration and Supervision in School Psychology</td>
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<tr>
<td>PSYC9126</td>
<td>Advanced Practicum II (School Psychology)</td>
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Summer Semester

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<tr>
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<tr>
<td>PSYC8140</td>
<td>Seminar in School Change</td>
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Third Year

Fall Semester

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<td>PSYC9150</td>
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Spring Semester

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Summer Semester

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<tr>
<td>PSYC9152</td>
<td>Internship Maintenance (School Psychology)</td>
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The comprehensive examination is taken during the summer of the second year. Dissertation defense is scheduled for the fall or spring semester of the third year.

Note: For individuals pursuing Supervisor Certification, enrollment in EDUC6702 Curriculum and Instruction: Theory and Practice is required. For descriptions of education courses, refer to Peter Sammartino School of Education program, pages 130–143.
Course Offerings

School Psychology

School of Psychology

The following courses were developed specifically for the school psychology programs. Other psychology courses are described on pages 209-211 and 216-217. Other listed education (EDUC) courses are described under Education in the catalog.

PSYC6651
3 Credits
Ethics and Professional Practice in Schools and School Psychology
Ethical issues, professional problems and legislation affecting the practice of school psychology are examined. American Psychological Association (APA) and National Association of School Psychologists (NASP) ethical practice guidelines are discussed. The role and function of the school psychologist as a mental health professional and educational specialist are reviewed.

PSYC7124
3 Credits
Developmental Child and Adolescent Psychology
Childhood through adolescence, including major theories of development (Piaget, Freud and social learning theories), research and application. Special emphasis on research concerning the development of prosocial behavior, interpersonalization and sex typing.

PSYC7145
3 Credits
Issues and Techniques in Research and Evaluation I
The first of a two-semester course that introduces the doctoral student to research methodology and exemplary research in school psychology and related fields of child mental health and special education. Students will be exposed to topics including data collection and analysis, meta-analysis methods, statistical packages (e.g., SPSS and SYSTAT), program evaluation and outcome-based school psychological services, qualitative research, case study and single-subject design. Prerequisite: PSYC7145 Issues and Techniques in Research and Evaluation I. Spring

PSYC7615
3 Credits
Child Assessment I with Practicum
Development of skills in objective testing and intellectual assessment, focusing on the WIAT, DAS-2 and Wechsler batteries. Translation of findings into reports relevant to treatment outcomes will be emphasized. Assessment of culturally diverse populations will be discussed. Practicum experience is required.

PSYC7651
3 Credits
Seminar in Professional School Psychology Practice and Ethics
This course provides an overview of the critical issues and emerging perspectives in professional school psychology. Students are reacquainted with historical, sociocultural, philosophical and fiscal issues facing the profession. Attention to role and function, with emphasis on the school psychologist in a leadership role in orchestrating a full range of prevention and intervention services to children, youth and families.

PSYC7815
3 Credits
Child Assessment II with Practicum
Development of skills in personality assessment with children and adolescents. Objective assessment of personality will be considered.

PSYC7819
3 Credits
Introduction to School Learning Problems I
The focus of this course is early identification of learning problems and their assessment with an emphasis on Curriculum-based Assessment (CBA), Functional Behavioral Assessment (FBA), Response to Intervention (RTI) and standardized measures of achievement.

PSYC7820
3 Credits
Introduction to School Learning Problems II
Theories of teaching and learning, research and methods of assessing effectiveness as related to the classroom experience. Issues of learner diversity as they affect the process are examined along with Functional Behavioral Assessment (FBA).

PSYC7825
3 Credits
Child Neuropsychology
Neuropsychology provides important underpinnings for effective assessment and planning interventions. Developmental neuropsychological approaches as they relate to child development and education will be presented together with appropriate assessment strategies. Educational and curriculum implications will be reviewed.

PSYC8110
3 Credits
Dissertation (School Psychology)
Research project required of all doctoral candidates in school psychology. Fall, Spring, Summer

PSYC8112
3 Credits
Dissertation Seminar (School Psychology)
This seminar will guide students through the often difficult process of conceptualizing a dissertation topic, writing proposals and defending both the proposal and the final project. Areas covered will include, but not be limited to, the development of a research statement, review of relevant literature, the writing process, Institutional Review Board (IRB) approval and data collection and analysis. Spring

PSYC8128
3 Credits
Child and Adolescent Psychopharmacology
This course focuses on up-to-date and practical information pertaining to the use of psychopharmacological agents in the treatment of childhood and adolescent disorders. Topics covered include general and cellular neuroanatomy, physiology and function; basic pharmacology; general principles of psychopharmacotherapy; and the use of sympathomimetic amines, central nervous system stimulants, antipsychotics, antidepressants, lithium carbonate, anxiolytics and other medications in children and adolescents. Summer

PSYC8130
3 Credits
Pediatric Psychology
This course focuses on the relationship between physical and mental health in children and adolescents, from a biopsychosocial approach. Developmental disabilities, pervasive developmental disorders, chronic illnesses, failure to thrive and delayed development are among the topics covered. Assessment and treatment will be emphasized along with the mental-health impact of physical, developmental and medical disorders on the child, the family and schooling. Fall

PSYC8151
3 Credits
Special Topics in School Psychology
This course focuses on contemporary and critical topics in the school psychology field. Topics may vary from semester to semester.
PSYC8140
3 Credits
Seminar in School Change
This advanced-level course focuses on synthesizing theoretical formulations and evidence-based research findings in order to facilitate significant changes in the educational environment. Issues focusing on barriers and resistance to change as well as contributors to resilient environments will be examined.

PSYC8720
3 Credits
Seminar in Child/Adolescent Assessment
Builds upon the students’ training and experience with various child and adolescent diagnostic and assessment procedures and techniques. Introduces new assessment strategies and critically reviews the strengths and limitations of commonly used assessment instruments and techniques. Students are provided an opportunity to apply advanced assessment techniques in either their work settings or at a practicum site.

PSYC8721
3 Credits
Seminar in Child/Adolescent Intervention
The practice and application of empirically supported psychoeducational and psychotherapeutic interventions with children in preschool through high school. Takes a developmental and transactional perspective on children’s learning and behavior problems. Students will be expected to bring case material from their field/work placement to complement lectures and discussions.

PSYC8725
3 Credits
Prevention and Intervention with Children and Adolescents
Methods of child and adolescent therapy are examined with an emphasis on evaluation of the appropriate treatment for children and adolescents at different stages of cognitive and emotional development. Research focusing on treatment outcome as well as clinical case material will be reviewed.

PSYC8815
3 Credits
Child Assessment III with Practicum
New directions in assessment are examined. The focus will be integration of intellectual, personality and cognitive information, resulting in meaningful data sharing. Students will be expected to complete two comprehensive psychological assessments.

PSYC8910
3 Credits
School-based Consultation with Practicum
Indirect methods of intervention are explored through different approaches to consultation which include mental health consultation, behavioral consultation and instructional consultation. Students are required to complete a project at an assigned site.

PSYC8922
3 Credits
Externship in School Psychology I
This is the culminating educational experience for students in the M.A./certification program in school psychology. Students are engaged in a planned sequence of field experiences in a school or other approved educational setting under the supervision of a certified school psychologist for a minimum of 120 hours over the course of two semesters in order to meet school psychology certification requirements.

PSYC8923
3 Credits
Externship in School Psychology II
Continuation of PSYC8922 Externship in School Psychology I.

PSYC8930
3 Credits
Advanced Consultation for School Psychologists
This course will cover the major models of school-based consultation (e.g., mental health, behavioral, instructional and ecological). Students will develop strong background knowledge in various models of psychological consultation, strengthen their problem-solving skills as applied to indirect service provision, master specific techniques used in various consultative models and practice applying their consultative skills to sample cases. Special attention will be paid to ethical issues as well as to issues pertaining to diversity and equity in psychological practice.

PSYC8951
3 Credits
Administration and Supervision in School Psychology
This doctoral-level seminar introduces the student to the theory and practice of administration and supervision of psychological services. Topics will include strategic planning, budget, human resources, marketing and staff development. Students are required to supervise a master’s-level school psychology student.

PSYC9110
3 Credits
School-Community Mental Health
Preventive science focusing on mental health services in the schools and communities is the primary focus of the course. Interdisciplinary courses in a sociocultural context are examined and model programs preventing mental illness and promoting mental health for children, adolescents and their families are reviewed and analyzed.

PSYC9115
0 Credits
Dissertation Maintenance
Continuation of the research project required of all doctoral candidates in school psychology.

PSYC9125
3 Credits
Advanced Practicum I (School Psychology)
Supervised training experiences at FDU’s Center for Psychological Services. Doctoral students are supervised by faculty on two or more child, adolescent or adult treatments and/or testing cases during the course. Practicum encompasses approximately 100 hours of training.

PSYC9126
3 Credits
Advanced Practicum II (School Psychology)
Supervised training experiences at FDU’s Center for Psychological Services. Doctoral students are supervised by faculty on two or more child, adolescent or adult treatments and/or testing cases during the course. Practicum encompasses approximately 100 hours of training. Prerequisite: PSYC9125 Advanced Practicum I (School Psychology).

PSYC9150
3 Credits
Internship (School Psychology)
Yearlong applied field experience in a school system, educational agency and/or mental health facility, required for Psy.D. candidates in school psychology.

PSYC9152
0 Credits
Internship Maintenance (School Psychology)
Continuation of applied field experience in a school system, educational agency and/or mental health facility.

Fall, Spring
Psychology • School (M.A. Plus Certification)

PSYC9171
5 Credits
Practicum in School Psychology I
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9172
5 Credits
Practicum in School Psychology II
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9173
5 Credits
Practicum in School Psychology III
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9174
5 Credits
Practicum in School Psychology IV
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9175
5 Credits
Practicum in School Psychology V
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9176
5 Credits
Practicum in School Psychology VI
The primary goal of the practicum sequence is to provide students with incremental opportunities to acquire an understanding of the skills to implement school-related practice under supervision.

PSYC9801
3 Credits
Independent Study in Psychology (Psy.D.)
Topic to be chosen by student and faculty mentor. Prerequisite: completion of required courses.

Note: For descriptions of education courses, refer to Peter Sammartino School of Education programs, pages 150–143.

School Psychology (M.A.) Plus Certification

The school psychology program provides the education to become a professional school psychologist at the master’s plus certification level (60 credits). The program emphasizes the development of skills to provide direct service to school-age children and the development of competencies necessary for maximizing the educational potential of all children. Students are expected to apply the knowledge and skills acquired to foster learning and social development. The program features opportunities to develop special competencies in areas such as assessment, identifying and treating behavior problems in children and adolescents, utilizing curriculum-based measurement tools to assess school health and student progress and assisting students on the autism spectrum in strengthening academic and life skills. Offered at Fairleigh Dickinson University’s Metropolitan Campus in Teaneck, New Jersey, the School Psychology program is recognized by and registered with the State Department of Education. The program holds full National Association of School Psychologists (NASP) accreditation, and graduates are able to become Nationally Certified School Psychologists upon successful completion of the PRAXIS examination and externship requirements.

This program is offered under the auspices of the School of Psychology, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, New Jersey.

Professional Accreditation
The Master of Arts in school psychology is accredited by the National Association of School Psychologists (NASP).

Admission Requirements
1. Satisfactory completion of 60 credits in the courses approved for the school psychology program.
2. Students receiving two or more grades below B in any graduate course will be placed on academic probation with the possibility of a reduced course load for the next regular semester. Students receiving a concurrent or subsequent third grade below B will not be permitted to continue in the program. A grade point ratio of at least 2.75 must be maintained at all times to continue in the program.
3. All students are required to take and pass a comprehensive examination at the conclusion of their course work, and only students who pass the comprehensive examination will be admitted to the degree.
4. Students must complete a total of 300 hours of practicum experiences (through course work and school-based experiences) before beginning the externship.

Requirements for the Master of Arts Degree and Certification in School Psychology
1. Satisfactory completion of 60 credits in the courses approved for the school psychology program.
2. Students receiving two or more grades below B in any graduate course will be placed on academic probation with the possibility of a reduced course load for the next regular semester. Students receiving a concurrent or subsequent third grade below B will not be permitted to continue in the program. A grade point ratio of at least 2.75 must be maintained at all times to continue in the program.
3. All students are required to take and pass a comprehensive examination at the conclusion of their course work, and only students who pass the comprehensive examination will be admitted to the degree.
4. Students must complete a total of 300 hours of practicum experiences (through course work and school-based experiences) before beginning the externship.
5. All students must take the school psychology Praxis examination before completion of the program.
6. Students must complete a 1,200-hour externship in a school or school-related setting under the supervision of a certified school psychologist.
7. Students will be dropped from the program for a proven, serious, negligent breach of the American Psychological Association Ethical Guidelines. Students will also be dropped from the program for violation of the Academic Integrity Policy.
8. Students encountering serious psychological adjustment problems will be advised to seek professional counseling. If the problems are not ameliorated, the student may be asked to leave the program.

Curriculum

First Semester
- PSYC6111: Theories of Personality...........3
- PSYC6121: Statistics and Research Methods........3
- PSYC6651: Ethics and Professional Practice in Schools and School Psychology........3
- PSYC7819: Introduction to School Learning Problems I...........3

Second Semester
- PSYC6115: Child Psychopathology...........3
- PSYC6129: Research Methods and Psychometrics........3
- PSYC7122: Developmental Psychology........3
- PSYC7820: Introduction to School Learning Problems II...........3

Third Semester
- EDUC6743: Introduction to Students with Disabilities in School and Community...........3
- PSYC7615: Child Assessment I with Practicum...........3
- PSYC7815: Child Assessment II with Practicum...........3
- PSYC8910: School-based Consultation with Practicum...........3

Fourth Semester
- EDUCE702: Curriculum and Instruction: Theory and Practice...........3
- PSYC7825: Child Neuropsychology...........3
- PSYC7827: Prevention and Intervention with Children and Adolescents...........3
- PSYC8815: Child Assessment III with Practicum...........3

Fifth Semester
- EDUCE7721: Philosophy of Education...........3
- PSYC8922: Externship in School Psychology I (600 hours)...........3
- PSYC9110: School-Community Mental Health...........3

Sixth Semester
- PSYC8923: Externship in School Psychology II (600 hours)...........3

Course Offerings

School Psychology

School of Psychology
The following courses were developed specifically for the M.A. in school psychology programs. Other psychology courses are described on pages 209-211 and 216-217. Other listed education (EDUC) courses are described under Education in the catalog.

PSYC6651: Ethics and Professional Practice in Schools and School Psychology
The focus of this course is early identification of learning problems and their assessment with an emphasis on Curriculum-based Assessment (CBA), Response to Intervention (RTI) and standardized measures of achievement.

PSYC7820: Introduction to School Learning Problems II
Theories of teaching and learning, research and methods of assessing effectiveness as related to the classroom experience. Issues of learner diversity as it affects the process are examined along with Functional Behavioral Assessment (FBA).

PSYC7825: Child Neuropsychology
Neuropsychology provides important understandings for effective assessment and planning interventions. Developmental neuropsychological approaches as they relate to child development and education will be presented together with appropriate assessment strategies. Educational and curriculum implications will be reviewed.

PSYC8725: Prevention and Intervention with Children and Adolescents
Methods of child and adolescent therapy are examined with an emphasis on evaluation of the appropriate treatment for children and adolescents at different stages of cognitive and emotional development. Research focusing on treatment outcome as well as clinical case material will be reviewed.
Public Administration

PSYC8815
3 Credits
Child Assessment III with Practicum
New directions in assessment are examined. The focus will be integration of intellectual, personality and cognitive information, resulting in meaningful data sharing. Students will be expected to complete two comprehensive psychological assessments.

PSYC8910
3 Credits
School-based Consultation with Practicum
Indirect methods of intervention are explored through different approaches to consultation which include mental health consultation, behavioral consultation and instructional consultation. Students are required to complete a project at an assigned site.

PSYC8922
3 Credits
Externship in School Psychology I
This is the culminating educational experience for students in the M.A./certification program in school psychology. Students are engaged in a planned sequence of field experiences in a school or other approved educational setting under the supervision of a certified school psychologist for a minimum of 1,200 hours over the course of two semesters in order to meet school psychology certification requirements.

PSYC8923
3 Credits
Externship in School Psychology II
Continuation of PSYC8922 Externship in School Psychology I. Fall, Spring

PSYC9110
3 Credits
School-Community Mental Health
Preventive science focusing on mental health services in the schools and communities is the primary focus of the course. Interdisciplinary courses in a sociocultural context are examined and model programs preventing mental illness and promoting mental health for children, adolescents and their families are reviewed and analyzed.

Public Administration (M.P.A.)
A part of the School of Public and Global Affairs, the Public Administration Institute offers a curriculum leading to the degree of Master of Public Administration (M.P.A.). The Institute is a member of the National Association of Schools of Public Affairs and Administration (NASPAA). Part of the University’s efforts to meet its public service obligations, the Institute seeks to provide well-trained recruits for public and nonprofit agencies and to improve the knowledge and credentials of administrators already employed in these organizations.

The curriculum is designed to provide graduates with conceptual, analytic and managerial skills for dealing with a variety of public services administration situations. Experienced administrators should be able to exchange perspectives with each other, apply job knowledge and anticipate the process of coping with ongoing change. Students new to the field will acquire a wide knowledge of public management and concept issues common to public administrators.

In an effort to broaden the educational experience of its students, the Public Administration Institute offers specialized course work at the University’s Wroxton College in England in such fields as health, emergency management and urban development.

This program is offered under the auspices of the Public Administration Institute, at the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey; at the Hudson City Center in Jersey City, New Jersey; at Newark Liberty International Airport in Newark, New Jersey; at the Port Authority Transportation Center in Jersey City, New Jersey; at the Port Authority George Washington Bridge Training Center in Fort Lee, New Jersey; and at other locations in New Jersey.

Honor Society
Students are eligible for membership in the National Public Administration Honor Society, Phi Alpha Alpha, upon the completion of 18 credits with a cumulative grade point ratio of at least 3.70.

Certificates
A certificate in public management will be granted to all students upon successful completion of 18 credits. A certificate in transportation management will be awarded to students completing six transportation-related courses.

Specializations
The Public Administration Institute offers various master’s specializations: bilingual administration, global transportation management, health services administration, international relations and diplomacy, nursing management, public management and sustainability.

Bilingual Administration
Courses are designed for those who are in, or seek to enter, fields of bilingual administration, in both the public and private sectors. Emphasis is placed on administration in multicultural settings, communication, pedagogy and related technological issues. Courses include PADM7802 Bilingual Methodology and PADM7806 Seminar for Public and Educational Administrators in the Metropolitan Area.

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 Services Administration
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.
International Relations and Diplomacy
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.

Nursing Management
The nursing management specialization is offered in cooperation with the Henry P. Becton School of Nursing and Allied Health. Students who choose this specialization complete all M.P.A. core course requirements and take selected courses in nursing management in the School of Nursing and Allied Health. Interested persons should contact the Public Administration Institute or the School of Nursing and Allied Health for details on this specialization.

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.

Sustainability
This 18-credit specialization emphasizes multi-stakeholder approaches to sustainability. Courses include PADM7820 Introduction to Sustainability, PADM7821 Environmental Law, PADM7822 Environmental and Ecological Economics, PADM7823 The Human Environment, PADM7824 Introduction to the Environment and Public Administration and PADM7825 Sustainability Capstone.

Admission Requirements
The credentials required for admission to the Master of Public Administration degree program as a matriculated student include the following:
1. A graduate application for admission and nonrefundable application fee.
2. A 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 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 or nondegree students with the approval of a graduate faculty adviser.

B.A./M.P.A. Combined Degree Program
Undergraduate students admitted to the B.A./M.P.A. combined degree program enter as matriculated students and must comply with all academic program requirements. (See Undergraduate Studies Bulletin.)

Requirements for the Master of Public Administration Degree
The M.P.A. degree is granted for a minimum of 39 credits, of which at least 30 credits must be taken at Fairleigh Dickinson University. The 39-credit total must contain:
1. Twenty-one credits of required foundation courses:
   PADM6600 Public and Nonprofit Management
   PADM6601 Organization Theory
   PADM6602 Budgeting and Finance
   PADM6603 Public Policy Administration
   PADM6604 Human Resources Management
   PADM6610 Quantitative Methods for Administrators
   PADM6680 Information Technology Management
2. Electives:
   The M.P.A. elective course offerings are designed to offer students the opportunity to take in-depth study in public management, international relations and diplomacy, bilingual administration, health services administration, sustainability and nursing management.
   3. PADM6801 Seminar in Strategic Management or PADM6802 Strategic Health Services Management Seminar. This course may be taken after completion of 27 credits, including the core curriculum.
   4. An accepted M.P.A. Project Report (3 credits) or M.P.A. Thesis (3 credits).
   5. 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.
   6. In addition to the 39-credit requirement indicated, an internship (3 credits) is required for students having little or no background in public service. Students will be informed of their need to complete an internship upon admission to the program.
   7. Students are required to meet with their assigned academic adviser each semester to assess overall academic performance and plan for their next semester's program of study.

Course Offerings
Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the Institute director.

Public Administration
Public Administration Institute

PADM6015 1 Credit
CPT (Curricular Practical Training) Independent Study
This course fulfills the credit requirement and complements students' enrollment in a Curricular Practical Training (CPT) experience.

PADM6600 3 Credits
Public and Nonprofit Management
This course provides an overview of the macro and micro forces that influence public and nonprofit management. These factors include fiscal and resource scarcity, rapid technological change and obsolescence, organizational downsizing/restructuring, information management technology and shifting employee demographics. The course focuses on the methods and strategies for efficiently and effectively managing public organizations in the face of the endemic internal and external problems and challenges.

PADM6601 3 Credits
Organization Theory
An analysis of the role of organizational theory, discussion of the major orientations in explaining organizational and administrative activities and their impact upon those who work within or are affected by organizational action.
Fall, Spring
Public Administration

PADM6602  
3 Credits  
**Budgeting and Finance**  
This course presents an overview of the major principles and concepts associated with public-expenditure budgeting and the resource allocation decision-making process. The first part of the course focuses on the centrality of the budget process and examines the logic and process of budgeting, including various approaches to budgeting, fund accounting and financial statement analysis. The second part of the course focuses on revenue structures and examines the basic principles of taxation and the nature and diversity of public sector revenues.

PADM6603  
3 Credits  
**Public Policy Administration**  
The goal of this course is to introduce managers to the public policy-making process. This introduction exposes students to the economic and moral justifications for public policies and teaches the policy-analytic tools that support informed policy. The course addresses policymaking at all levels of government with an emphasis on skills that can be used by managers on a daily basis. Prerequisite: PADM6610 Quantitative Methods for Administrators.

PADM6604  
3 Credits  
**Human Resources Management**  
This course presents students with an overview of tools and techniques of human resources management and major personnel policy issues. The course emphasizes the application of specific knowledge, skills and abilities to solve management problems. Topics covered include recruitment, examination, job classification, salary and wage administration, performance management, employee development, supervision, equal employment opportunity and affirmative action.

PADM6610  
3 Credits  
**Quantitative Methods for Administrators**  
This course provides students with the computer and interpretation skills needed to answer quantitative questions that confront managers and policy-makers. Topics covered include statistical inference, forecasting and other forms of prediction.

PADM6680  
3 Credits  
**Information Technology Management**  
This course is an overview of the various tools and technologies of information management. The fundamentals of information systems are presented, including the future impact of the technology on society with emphasis on understanding emerging policy and ethical and managerial issues. Focus will be on the use of management information systems in decision making and performance management.

PADM6685  
3 Credits  
**Computer Application Resources**  
The course provides students with a comprehensive understanding of computers and computer software and applications, including the internet, and explores such concepts as computer architecture, data storage and file management. It also examines the effects of computers and their applications to ethical, social and managerial issues.

PADM6801  
3 Credits  
**Seminar in Strategic Management**  
This seminar is designed to involve the integration of the concepts and techniques covered in previous courses. Through use of case studies and simulations, the students will analyze the problem situations in order to identify the most strategic issues, the leverage points of action and appropriate action plans. An emphasis will be placed on collaborative problem solving and team work. The case studies will be drawn from the public and nonprofit sectors and will vary from semester to semester. Prerequisites: must have completed 27 credits of course work and have approval of the academic adviser.  
*Fall, Spring*

PADM6802  
3 Credits  
**Strategic Health Services Management Seminar**  
An advanced-level course oriented toward an overall view of strategy formulation and implementation from the perspective of senior management. The course is designed to serve as the capstone of the health services administration curriculum, offering students an opportunity to integrate what they have learned in their functional and specialty course work and to apply this knowledge to the analysis and resolution of general management problems. Didactic emphasis will be placed on contemporary approaches to environmental assessment, strategic planning and competitive positioning of organizations in the health care marketplace. A combination of lectures, case studies and supplemental research activities will be used in conjunction with oral presentations and class discussions. Prerequisite: completion of at least 27 credits.  
*Spring*

PADM6810  
3 Credits  
**Public Management Internship**  
Participation in the activities of an administrative agency, either public or quasi-public, local, state, federal or special or civic organization. Completion of a project or specific work assignment under the joint supervision of a faculty member and an agency supervisor. Prerequisites: must have completed all required courses and have permission of both the course instructor and the academic adviser. (Required for students with little or no background in public or nonprofit service. [NOTE: for those students who are required to complete an internship — the 3-credit internship is in addition to the 39-credit requirement. This requirement may be waived through petition to the Institute for those students having sufficient professional experience.])  
*Fall, Spring and/or Summer*

PADM6811  
3 Credits  
**Independent Study in Public Administration**  
Independent study in a specialized aspect of administration selected by the student, academic adviser and instructor. Prerequisites: PADM6600 Public and Nonprofit Management and prior approval of academic adviser and instructor.

PADM6812  
3 Credits  
**The Political Environment of Public Administration**  
Public administration is part of the overall governmental process. This course explores the relationship between public administration and other branches of the political system. It covers such topics as the Constitution and public administration; relations between the executive and public administration; legislative oversight; and the influence of interest groups on public administration. Prerequisite: PADM6600 Public and Nonprofit Management.  
*Fall, Spring*

PADM6821  
3 Credits  
**M.P.A. Project Report**  
An analytic, written report detailing action-oriented research accomplished for a public agency. Prerequisite: must have completed 33 credits and have approval of the academic adviser. (PADM6821 M.P.A. Project Report or PADM6822 M.P.A. Thesis is required.)  
*Fall, Spring*

PADM6822  
3 Credits  
**M.P.A. Thesis**  
A major piece of written work based on research applicable to administration. Prerequisites: must have completed 30 credits and have approval of the academic adviser. (PADM6821 M.P.A. Project Report or PADM6822 M.P.A. Thesis is required.)  
*Fall, Spring*

PADM7711  
3 Credits  
**Accounting for Managerial Decision Making**  
This course centers on the use of accounting data in the management decision-making process in public and nonprofit organizations. Particular attention is given to evaluation of the underlying financial stability and the operating efficiency and effectiveness of public and not-
for-profit organizations. The management implications of using several bases of accounting is considered. A review of financial statements is undertaken to illustrate the early warning signs of underlying fiscal distress. Prerequisites: PADM6600 Public and Nonprofit Management and PADM6602 Budgeting and Finance.

PAFM712  
5 Credits  
Managing Organizational Change  
This course provides a conceptual framework for analyzing the dynamics and process of planned organizational change in public and nonprofit organizations. The focus is on effective techniques and study of the role problems, identifying intervention strategies and implementing planned change efforts. Each student is given an opportunity to prepare an action plan to implement a significant change in their organization. Prerequisites: PADM6600 Public and Nonprofit Management and PADM6604 Human Resources Management.

PAFM715  
5 Credits  
Organizational Performance Assessment  
This course, directed to public and nonprofit organizations, assesses organizational effectiveness, examining it in terms of different levels of the organization, from the individual, to the programmatic, to the institutional. The focus is on the identification of criteria assessing organizational effectiveness and on techniques available to measure effectiveness in terms of operational efficiency, outcome effectiveness and consumer/client satisfaction. Prerequisite: PADM6600 Public and Nonprofit Management.

PAFM714  
5 Credits  
Law and Administration  
This course focuses on the constitutional-legal basis in which American public administration is set, including fundamental concepts such as separation of powers, checks and balances, federalism, regulation, delegation and discretionary authority and common law and equity. The course also seeks to familiarize students with legal reasoning, legal process and the role of lawyers. The course introduces students to administrative agency rule making and adjudicative practice; law defining and constraining public official action and responsibility, including investigative powers, openness and public disclosure, public official tort liability and political activity; and the “basics” of primary legal research, especially in tracing the evolution of public policy. Prerequisite: PADM6600 Public and Nonprofit Management.

PAFM715  
5 Credits  
Employee Relations  
The management of employee labor relations in both the public and nonprofit sectors is surveyed in this course. Collective bargaining practices are examined, with emphasis on the art of successful labor negotiations and contract administration. Included are discussions of the legal framework, the dynamics and effects of unionization, current issues in employee relations and the role of the grievance procedure and other workplace-dispute resolution mechanisms. Prerequisites: PADM6600 Public and Nonprofit Management and PADM6604 Human Resources Management.

PAFM716  
5 Credits  
Delivery of Public Services  
This course examines the traditional organizational and institutional structures for delivering public services, including regional entities, public authorities and “mixed” approaches. In addition, more recent developments are examined, including competitive contracting; transfer of functions between sectors; and “privatization.” The course covers domestic and international developments in “mixed” economies and enterprises. Prerequisite: PADM6600 Public and Nonprofit Management.

PAFM717  
5 Credits  
Planning and Marketing for Managers  
An integrated overview of the theory and processes of modern strategic planning and marketing as they apply to the delivery of public and not-for-profit services. Contemporary strategies and techniques will be examined through formal lectures and group discussions focusing on the applications of theory to practice. This course is designed to develop the conceptual skills that will help the student understand the role of marketing within the broader scope of institutional planning. Prerequisite: PADM6600 Public and Nonprofit Management.

PAFM718  
5 Credits  
Contemporary Management Issues  
An analysis of current issues and approaches to enhancing the quality of administration in the public and nonprofit sectors. Topics change; may be repeated for credit. Prerequisites: PADM6600 Public and Nonprofit Management and permission of instructor.

PAFM721  
5 Credits  
Environmental and Sociologic Aspects of Global Transportation  
The course provides an in-depth analysis of the environmental and ecological aspects of the extent of global transportation in the contemporary era. Changes in consumption, sustainability, mobility and distribution are presented in conjunction with transitions in societal paradigms and constructs.

PAFM724  
5 Credits  
Comparative Governmental and Administrative Systems  
The course takes a global view of comparative governmental and administrative systems by introducing students to their background development and their essential institutional and political components. The wide diversity of such systems is highlighted by a study of such systems in six or seven nations through comparative analyses of their various approaches to policy and relative problematic issues.

PAFM726  
5 Credits  
Development of Political and Administrative Theory  
Through primary sources and materials, the course traces the development of individualism, rationalism, utilitarianism, positivism, feminism, liberalism, social Darwinism and other concepts and movements that have contributed to the evolution of modern political and administrative theory. Applications to the administrative area are made by an analysis of the writings of Hobbes, Locke, Montesquieu, Beccaria, Burke, Paine, Bentham, Mill, Marx, Spencer, Weber and others. Comparative aspects of these works are also discussed.

PAFM731  
5 Credits  
Introduction to Health Systems and Policy  
This course presents an integrated overview of traditional and contemporary approaches to financing and organizing the provision of health services in the United States. The course traces the evolution of the health care delivery system, with special attention given to the interplay between political, legal and socioethical dynamics in the formation of health policy at the federal and state levels of government. Fall.

PAFM732  
5 Credits  
Health Finance and Control Systems  
This course focuses on the unique characteristics of the health care marketplace in relation to the challenge of financing care and controlling utilization at both the macro and micro levels of the delivery system. Topics include prospective rate-setting and reimbursement systems, capital financing, regulatory processes and utilization-management techniques. Fall.

PAFM733  
5 Credits  
Quantitative Methods for Health Administration  
This course introduces the student to a variety of quantitative analytic tools and their application to planning, decision making and program evaluation. Areas covered include research
design, sample survey techniques, biostatistics and cost/benefit analysis. Special attention is given to applying the concepts and methods of epidemiology to health services management.

**Fall, Spring**

**PADM7734**

3 Credits

**Managing the Continuum of Care**

This course focuses on the administrative challenges of designing and managing organizational arrangements for delivering a comprehensive array of health services spanning the continuum from wellness to extended care. Course content concentrates on the structural and integrative mechanisms required to meet the patient's total health and social support needs of patients on an ongoing basis. Financial, marketing, human resources and legal/ethical issues are also addressed.

Prerequisites: PADM6600 Public and Nonprofit Management and PADM7731 Introduction to Health Systems and Policy or permission of instructor.

**Spring**

**PADM7735**

3 Credits

**Comparative Health Systems**

This is a two-week intensive course studying the British health system, with particular reference to the National Health Service. The course analyzes the historical background, institutional framework, governing policies, financing, organization and staffing, services and operations and the roles of public and private sector services. Topics are presented through lecture, discussion and field visit methods, accompanied by selected readings. Prerequisites: PADM6600 Public and Nonprofit Management and PADM7731 Introduction to Health Systems and Policy or permission of instructor.

**Spring**

**PADM7736**

3 Credits

**Integrated Health Care Systems**

The concept of system integration has emerged as a unifying theme for the health care industry as it prepares to respond to market demands for cost containment, quality assurance and accountability. The purpose of this course is to present a comprehensive overview of contemporary strategies for achieving collaboration and coordination of hospital and physician services within the context of managed care. Alternative models for organizing and financing integrated delivery of health care will be discussed. Legal, regulatory and operational implications of health-system integration also will be addressed.

**Spring**

**PADM7737**

3 Credits

**Ethical and Legal Issues in Health Care**

The legal content of this course will focus on major elements in professional liability, risk management, patient rights, quality-of-life outcomes and rationing of care. The ethical content will address the moral foundation of the profession, ethical decision making, critical thinking and the development of an ethical perspective throughout the life span. An ongoing theme of this course is the emphasis on humanizing health care. (May be taken as an alternative to PADM7733 Comparative Health Systems.)

**Spring**

**PADM7748**

3 Credits

**Introduction to Technology Management**

This course is an overview of the various desktop applications used in an information systems environment. Focus will be on the various components of management information systems and their components.

**PADM7749**

3 Credits

**Development of Global Transportation Systems**

The course analyzes the various venues of transportation systems (air, land, water) in terms of the human component and materials. In particular, emphasis will be given to the effect of these systems on various international, cultural, economic and technological developments. Also, case studies will be presented which highlight each system's administrative and organizational elements.

**PADM7753**

3 Credits

**Issues of Security and Transportation Systems**

The course is a study of the aspects of security issues as they relate to the various components of modern international transportation systems. Issues of security and transportation administration in the 21st century will be emphasized, along with national and international governmental policies and responses.

**PADM7759**

3 Credits

**The Administration and Law of Sports**

The course will provide an overview of the sports industry from an administrative and legal perspective. The course will address the administrative issues of professional and amateur sports; franchise valuation; league structure, stadiums and arenas; the media; sports marketing and intellectual property rights; labor relations and antitrust laws; finance and tax issues; and ethics.

**PADM7762**

3 Credits

**Public Purchasing**

The course traces the background and role of purchasing in the public sector, with emphasis on centralized purchasing, local and state contracts, cooperative purchasing in municipalities and the creation of bid specifications. Case studies and analyses will highlight each of the issues presented.

**Spring**

**PADM7765**

3 Credits

**Developing Modern International Relations**

The course presents the background and development of modern international relations, with an emphasis on its administrative, political and bureaucratic aspects. Selected cases from the 19th, 20th and 21st centuries will be analyzed, particularly in terms of governmental structures. The evolution of contemporary concepts and practices will also be traced.

**PADM7769**

3 Credits

**Aviation Management and Operations**

With an introduction and historical overview, the course presents and analyzes the components of transportation centers, classifications and regulations and safety. The economic role and environmental responsibility of such center management are also emphasized. Future projections for such centers summarize the course components.

**PADM7770**

3 Credits

**Global Administrative Skills**

The course will analyze the changing and interactive aspects of global administrative skills, communication and policies in the modern world. The international factors of administration in the public and nonprofit as well as the private sectors will be presented with the goal of making students aware and conversant in these areas.

**PADM7780**

3 Credits

**Diplomatic Communication for Administrators**

The course will give students a working knowledge of French terminology and phrasing, applicable to public service and/or health care administration. The course seeks to meet the communicative needs of a linguistic group in the U.S., Canada and the Caribbean, as well as elsewhere globally. In that regard, the course reinforces the University's global educational mission.

**PADM7789**

3 Credits

**Global Energy System**

The course provides an in-depth presentation of the global energy resources and consumption issues. The format will be a scientific overview of diverse energy issues such as needs, fossil fuels, grown fuels, nuclear technology and natural fuels (wind, solar, etc.) Future forecasts will also be discussed and analyzed.
Public Administration

PADM7790
3 Credits
Knowledge Management in Public Administration
This course focuses on knowledge management, especially in the public and nonprofit sector, and the various technologies that potentially would be used to construct knowledge management systems. The domain of knowledge management is analyzed and discussed, as well as the nature of the related technological structures. The numerous aspects of communications and their connectivity to the public and, in certain cases, private sectors, will be explored.

PADM7791
3 Credits
Global Health Issues
The course will study the effects of globalization on contemporary health care, especially in the public sector. Worldwide health organizations (WHO, NGOs) in particular will be discussed and analyzed.

PADM7795
3 Credits
Finance and Accounting for Public Administration
This course will start with a review of key terms and concepts and introduce generally accepted accounting and auditing principles. Case studies and real-world examples will be used so students can learn how to: read financial statements (i.e., balance sheet, income statement, cash flow analysis); conduct break-even analysis; calculate cost of capital and return on investments (ROI); recognize trends and evaluate organizational performance; and use financial measures for strategic planning.

PADM7796
3 Credits
International Dimensions of Public Administration
The course addresses the essential dimensions of the international and cross-cultural aspects of public administration. Social and cultural comparisons are employed with analysis of various select global models with an understanding of the varied international dimensions of administration being presented as a primary objective.

PADM7797
3 Credits
Corporate Finance for Public Administrators
An introduction to the financial management of a corporation. Students study the following broad questions: How should a firm decide whether to invest in a new project? How much debt and equity should a firm use to finance its activities? How should a firm pay its investors? How do taxes affect a firm's investment and financing decisions? What determines the value of a firm? The emphasis throughout the course is on the economic principles that underlie answers to these questions.

PADM7801
3 Credits
Introduction to Contemporary Chinese Culture and Society for Administrators
The course offers a basic introduction to contemporary cultural and sociological aspects of contemporary China through the presentation and discussion of issues relevant to the modern global experience. Emphasis is given to the application of this knowledge in the bilingual administrative area.

PADM7802
3 Credits
Bilingual Methodology
The course introduces the methodology of presentation, instruction and delivery of various aspects of Chinese and East Asian culture essential for those in the bilingual administrative and pedagogic areas. Chinese will be used during classes, although English will be the primary language of instruction in the course.

PADM7803
3 Credits
Administrative Aspects of East Asian Confucianism
The outstanding influence of Confucianism is presented through a discussion of its origins and effect on East Asian structures, with particular emphasis on its application to administrative theory, skills and roles. Confucian readings are used to highlight these aspects.

PADM7804
3 Credits
Global Communication Skills Forum for Administrators
In a seminar format, students are introduced to the communicative aspects of bilingual Chinese and Asian studies, with emphasis on international communicative methods as well as particular skills essential in fulfilling administrative roles.

PADM7805
3 Credits
Advanced Topics in Bilingual and Intercultural Administration
Readings and discussion of scholarly texts in history, philosophy and political and social issues in modern Chinese prose are presented. Emphasis is given to the analysis of structural patterns and writing practice in a bilingual modality.

PADM7806
3 Credits
Seminar for Public and Educational Administrators in the Metropolitan Area
The course offers the knowledge and skills for administrative and leadership roles in the bilingual educational field. Application of bilingual studies is made, and aspects of the administrative role in the educational process are analyzed. Emphasis is also given to market analysis and application.

PADM7807
3 Credits
Methodology of Second Language Acquisition
The structure, methodology and uses of second-language acquisition are studied and analyzed through discussion and research into both linguistics and pedagogic techniques. The nature of second-language acquisition is also explored as well as evaluates aspects of language studies.

PADM7809
3 Credits
Seminar in Career Orientation for Administrators
The course will introduce students to the application of the knowledge and experience of a career in bilingual presentation. This includes résumé and interview techniques and an analysis of the context of the area of educational administrative oversight.

PADM7810
3 Credits
Airport Operations Management
The course presents and analyzes the various aspects and components of airport management and planning, which include background, legal aspects, governmental relations, as well as the financial and economic dimensions of commercial aviation. The environmental components of modern transportation are also delineated.

PADM7811
3 Credits
Grant Writing and Evaluation
The major objective of this course is to prepare students who are planning careers in public and nonprofit organizations to attain grants for their organizations’ projects. For success in this area, students will learn planning attractive proposals, attaining research funding, actual proposal writing and management of the final grant. The course combines theory and practice, with emphasis on the practical.

PADM7812
3 Credits
Ethics in Public Administration
The course presents and analyzes the foundational and essential aspect of ethics and ethical principles in the realm of public administration. Applicable ethical concepts are identified and related to the various components of the public sector, with their significance and implication being related especially to contemporary institutions.
PA DM 7814
3 Credits
**Health Policy and the Public**
The course presents the various policy and administrative issues related to health care and the public, military bureaucratic structure, organization and policy-related issues.

PA DM 7820
3 Credits
**Introduction to Sustainability**
This class will focus on understanding the concept of sustainability, including the challenge of integrating the not necessarily easily compatible fields of environmental protection, economic development and social equity. As this is an opportunity to bring together students from three different schools (business, public administration and education), full exploration will be made to possible synergies in understanding sustainability.

PA DM 7821
3 Credits
**Environmental Law**
This class will focus on the interrelationship of the environment (in its natural state) and humanity (as an embodiment of intelligent actors) acting upon the environment with consumptive and preservation forces leading to the establishment of rules, laws and policies to balance their coexistence.

PA DM 7822
3 Credits
**Environmental and Ecological Economics**
An introduction to the economics of sustainable growth and development. The difference between standard neoclassical macroeconomics and microeconomics, environmental economics and ecological economics; the nature and impact of economic growth, population growth, technological change and consumption on the environment and human well-being. The nature and impact of markets, market failures, property rights, international trade and globalization on the environment, Environmental policy objectives, decision making and instruments.

PA DM 7823
3 Credits
**The Human Environment**
The human species is treated as a biological component of a complex ecosystem. Topics include human evolution, technological change, resource availability and pollution problems. The scheduling of lecture, lab and field experiences may vary to accommodate conditions of tide, weather and unique learning opportunities that may arise. Some field trips may be scheduled for a weekend.

PA DM 7824
3 Credits
**Introduction to the Environment and Public Administration**
This is an introduction on how public administrators handle environmental concerns and the effects of global warming on local, state and federal levels. The class structure will include 1) what are environmental problems and concerns; 2) differences on a local, state and federal level; and 3) how environmental issues can influence local, state and national politics.

PA DM 7825
3 Credits
**Sustainability Capstone**
A major, real-world project in the development and promotion of a sustainability initiative. The project and its results will be gathered in a portfolio with work done in the other courses and presented to the other program participants in a common seminar. Prerequisites: PA DM 7820 Introduction to Sustainability, PA DM 7821 Environmental Law, PA DM 7822 Environmental and Ecological Economics, PA DM 7823 The Human Environment and PA DM 7824 Introduction to the Environment and Public Administration.

School Psychology


School Psychology (Psy.D.)

See Psychology, School Psychology, page 222.
Service Innovation and Leadership (M.S.)

The degree is designed to provide master’s-level studies for traditional and nontraditional students in preparation for or advancement in the hospitality management field with a unique focus on service innovation and leadership. It has a strong foundation in the core areas of leadership, service strategies, financial systems, organizational communication and conflict management, human resource administration and marketing as they pertain to service innovation and leadership.

The 30-credit, nonthesis program consists of 27 credits of core courses and 3 credits of electives. The required courses include: MSSIL7001 Introduction to Graduate Studies and Research; MSSIL7003 Current Concepts of Leadership in the Service Industry; MSSIL7004 Service Management; MSSIL7005 Managing Service Industry Financial Systems; MSSIL7006 Human Resource Management and Development in the Service Industry; MSSIL7007 Global Marketing for the Service Industry; MSSIL7008 Organizational Communication and Conflict Management; MSSIL7009 Service Capstone; and MSSIL7010 Technology in the Service Industry. There is a required master’s project.

Classes are offered in-person at the Metropolitan Campus, Teaneck, New Jersey; at the Florham Campus, Madison, New Jersey; and at Wyndham Worldwide in Parsippany, N.J., where the University has a partnership to offer graduate degrees online and in-person.

The program is offered through the International School of Hospitality and Tourism Management of the Anthony J. Petrocelli College of Continuing Studies.

Admission Requirements
1. Must have completed a bachelor’s degree program with a minimum cumulative grade point ratio of 3.00 from an accredited undergraduate institution. (No GMAT or GRE test score is required.)
2. Transcripts from all undergraduate, graduate and postgraduate studies.

3. A written statement of 1,000 words detailing the applicant’s interest and goals for a career in service leadership.
4. Three letters of recommendation, including at least two from former instructors.
5. International students must take the Test of English as a Foreign Language.

Requirements for the Master of Science Degree
The M.S. in service innovation and leadership is a 30-credit, nonthesis program requiring completion of 27 credits of core courses, plus 3 credits of electives. A Master’s Research Project is required.

Curriculum
Whether taken in-person, blended or fully online, the M.S. in service innovation and leadership prepares students for leadership positions in the service sector. The curriculum draws upon the work experience of students to integrate theory and practice as it prepares them for positions in service leadership. The proposed required courses were developed based on need and potential demand. Students will be required to complete a noncredit Master's Research Project during the first semester of study in the program as a capstone requirement. This project and its requirements will be introduced during the early part of the degree program when the students are enrolled in the MSSIL7001 Introduction to Graduate Studies and Research course.

Required Courses (27 credits)
All students enrolled in the M.S. in service innovation and leadership must complete the following:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MSSIL7001</td>
<td>Introduction to Graduate Studies and Research</td>
<td>3</td>
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<tr>
<td>MSSIL7003</td>
<td>Current Concepts of Leadership in the Service Industry</td>
<td>3</td>
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<tr>
<td>MSSIL7004</td>
<td>Service Management</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL7005</td>
<td>Managing Service Industry Financial Systems</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL7006</td>
<td>Human Resource Management and Development in the Service Industry</td>
<td>3</td>
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Electives (3 credits)
Electives may be chosen from the list below or from courses offered by the Anthony J. Petrocelli College of Continuing Studies and the International School of Hospitality and Tourism Management. Electives must be approved in advance and students must meet all prerequisite requirements. Additional electives will be developed with guidance from the school’s industry advisory board.

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<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>MSSIL6001</td>
<td>Civil Law and the Service Industry</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL6002</td>
<td>Accounting for Service-industry Administrators</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL6003</td>
<td>Distribution Systems Management</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL6004</td>
<td>Global Service Industry Business Management</td>
<td>3</td>
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<tr>
<td>MSSIL6005</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL6006</td>
<td>Strategic Processes in Service Firms</td>
<td>3</td>
</tr>
<tr>
<td>MSSIL6007</td>
<td>Curriculum and Instruction for Service-industry Professionals</td>
<td>3</td>
</tr>
</tbody>
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Master’s Research Project (Noncredit)
Students will be required to complete a Master’s Research Project during the last term of study in the program as a capstone requirement. This project is a requirement for graduation. The requirements for the Master’s Research Project will be introduced during the early part of the student’s degree when they take MSSIL7001 Introduction to Graduate Studies and Research.

*Must be taken in the first semester.

*Must be taken in the last semester.
Service Innovation and Leadership

introduced in that class will include the parameters for the final project as well as specific benchmarks in the process that need to be met by the students. In addition, the research project will demonstrate understanding of competencies regarding service innovation and leadership that are developed throughout the course. This project will be evaluated by full-time faculty to determine whether it meets the requirements, and a pass/fail grade will be used.

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

Service Innovation and Leadership
International School of Hospitality and Tourism Management

Core Course Requirements

MSSIL.6100
0 Credits
Master's Research Project
The research project is an interactive, culminating learning project that focuses on an area chosen by the student related to the service industry in line with the student's professional area of interest. This qualitative research paper should present the nature of the problem or subject investigated, its significance to the profession or larger field of study, a discussion of the relevant literature, a clearly defined method for answering or exploring the question of interest and specific conclusions or evaluations based on investigation. The length of the project depends on the subject. However, 25–40 pages are appropriate, plus appendices such as tables, charts, questionnaires, interview schedules, etc. Documentation and the bibliography must meet the standards for academic research set forth by the American Psychological Association (APA). Notes and bibliography should be consistent and follow the style of the latest edition of the APA.

MSSIL.7001
3 Credits
Introduction to Graduate Studies and Research
This course provides an introduction to graduate studies with heavy emphasis on referencing and citations in APA style. Quantitative and qualitative research studies are explored for structure, discussed in depth and critiqued. A comprehensive research proposal is the goal of this course. The Master's Research Project (MSSIL.6100) and its requirements will be introduced in this course. The research paper will then be completed in the last term of study in the program as a capstone requirement.

MSSIL.7003
3 Credits
Current Concepts of Leadership in the Service Industry
This course examines key theories of leadership and motivation as applied to various service-industry contexts, with an emphasis on analysis of leadership behaviors, managerial action and servant leadership.

MSSIL.7004
3 Credits
Service Management
This course offers a review of current service theories and strategies used to provide total customer satisfaction, including methods for measuring customer satisfaction and total quality management applications.

MSSIL.7005
3 Credits
Managing Service Industry Financial Systems
This course focuses on the analysis, interpretation and application of financial information derived from the four major financial statements. Moreover, students will develop an understanding of the time value of money and various valuation techniques. This course also focuses on providing students with an understanding of the ways in which service-industry enterprises access the capital markets.

MSSIL.7006
3 Credits
Human Resource Management and Development in the Service Industry
This course provides an in-depth review of human resource management practices, with case-study reviews of best practices across the service-industry context. Students will be introduced to essential functions including performance and evaluation systems, training and development, staffing and succession, compensation and rewards, workplace diversity, teamwork and communication.

MSSIL.7007
3 Credits
Global Marketing for the Service Industry
This course provides an overview of advanced marketing strategies and tactics. Global contexts will be explored to the extent of their impact and best practices will be reviewed. The following topics will be studied: strategic planning, pricing practices, international marketing, global distribution systems and advertising.

MSSIL.7008
3 Credits
Organizational Communication and Conflict Management
This course provides an overview of theories and models of communication and examination of barriers to effective communication. Techniques for improving conflict management and resolution are considered through interpersonal, group and organizational communication.

MSSIL.7009
3 Credits
Capstone for Service, Innovation and Leadership
This course is designed to be a capstone experience. Students will draw on all previously taken courses in a "real-world" application toward their particular area of interest. Service-industry partners will pose real-world consulting dilemmas for the students to solve in teams. To be taken after 30 credits have been completed.

MSSIL.7010
3 Credits
Technology in the Service Industry
The technical and organizational dimensions and foundations of management information systems will be studied with a focus on the management of information, technology and systems development. This class is oriented to the end-user.

Electives
All candidates must take 3 credits of electives. The elective may be chosen from the M.S. in service innovation and leadership courses with the approval of the student's adviser.

MSSIL.6001
3 Credits
Civil Law and the Service Industry
This course provides an overview of tort and civil law oriented to service-industry contexts.

MSSIL.6002
3 Credits
Accounting for Service-industry Administrators
This course emphasizes the interpretation and usage of accounting information and procedures necessary for decision making in service-industry enterprises. Topics include Uniform System of Accounts, budgeting and the interpretation of balance sheets, income, cash flow and retained-earnings statements.
MSSIL.6003
5 Credits
**Distribution System Management**
This course reviews the essential elements of supply-chain management. The learning experience is focused on forecasting, planning, strategy, production, distribution procurement, quality control and process frameworks.

MSSIL.6004
5 Credits
**Global Service Industry Business Management**
This course examines global service business strategies with a focus on the following key issues: management process, labor, legal, financial, service delivery, marketing and government affairs.

MSSIL.6005
3 Credits
**Organizational Behavior**
This course examines systems-level behavior in a number of service industry contexts with an emphasis on understanding and developing the individual, team and organizational capacity for change and improvement.

MSSIL.6006
3 Credits
**Strategic Processes in Service Firms**
This course examines a variety of strategic constructs and processes utilized by leading global service-industry firms. The course focuses on strategic thinking and learning in relation to strategic planning.

MSSIL.6007
3 Credits
**Curriculum and Instruction for Service-industry Professionals**
The emphasis of this course will be on the relationship between models in all phases of the curriculum in service innovations and leadership. Curriculum design, content and integration incorporated with technology will be the focus for the individual who will have a career in the service industry as a trainer, workshop planner or instructor in the industry or academia.

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**Sports Administration (M.S.A.)**
The Master of Sports Administration (M.S.A.) degree was offered beginning in January 2009. It is the first graduate degree in sports administration offered in the state of New Jersey.

This 36-credit program includes 15 credits of required courses, 15 credits in a specialization and 6 credits of electives. The two areas of specialization are sports administration and coaching theory and strategies.

In its Occupational Employment Projections to 2012, the United States Bureau of Labor Standards provides information on projected growth in occupational groups. There is a 6.1-percent increase projected for the broad category of self-employed professionals and related occupations. Athletes, coaches, umpires and related workers are found within this group. Projected growth specifically for these occupations is 18.3 percent for the period in review.

The M.S.A. program focuses on practical and theoretical aspects of the various components relative to the administration and management of sports personnel and facilities, businesses, health facilities and coaching and recreational activities in both volunteer and paid positions. There is also a strong emphasis on leadership throughout the program.

The program provides master-level studies for the traditional and nontraditional student involved in sports and health facilities, including program planning and development. The M.S.A. program focuses on the broad view of the sports administration function by including issues such as business, marketing, recruitment and support services. The program promotes the understanding of issues that impact the success of activities such as legal, health and safety standards in sports administration. The degree also encourages the development of high-quality applied research for practitioners in the field of sports administration.

Classes are offered at convenient off-campus locations and will also be offered in a blended model, combining the traditional classroom setting with online work, and through completely online delivery.

This program is offered under the auspices of the School of Administrative Science, Anthony J. Petrocelli College of Continuing Studies, at the Florham Campus, Madison, New Jersey; at the Metropolitan Campus, Teaneck, New Jersey; at locations throughout New Jersey; and online.

**Admission Requirements**
Candidates for admission to the Master of Sports Administration degree program must be highly motivated individuals who have work experience in the area or wish to pursue a career in sports administration. A bachelor’s degree from an accredited institution with a cumulative grade point ratio of at least 3.00 is required. Care will be taken to ensure a diversity of philosophies and academic backgrounds in the classes.

Students seeking admission to the program will have to submit:
1. A completed application;
2. Transcripts from all previous undergraduate, graduate and postgraduate studies;
3. A written statement of 1,000 words on current job responsibilities, duties and management philosophy or on the applicant’s career goals; and
4. Three letters of recommendation, including at least two from former instructors/professors.

There is no Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) requirement although there is a requirement for Test of English as a Foreign Language (TOEFL) scores for international students.

**Requirements for the Master of Sports Administration Degree**
1. Completion of a minimum of 36 graduate credits.
2. Cumulative grade point ratio of 3.00 for the degree program of study.
3. Cumulative grade point ratio of 3.00 in the core curriculum.
4. Minimum of 30 credits completed at Fairleigh Dickinson University.
5. Maximum of six years to complete the master’s degree requirements.

Up to six credits of graduate course work may be transferred from another college or university if completed within the six-year period. Courses submitted for transfer credit will be reviewed and evaluated by the director of the Master of Sports Administration Program.
Sports Administration

Administration program. In assessing requests for transfer credits, the M.S.A. faculty may require students to complete additional course work to update knowledge and skills to meet master's degree requirements.

The following are the specific program requirements for the master's degree. These curriculum areas and credit-distribution requirements are designed to provide students with flexibility in planning a program of study within a focused framework of professional development.

It is important to note that since sports administration is such a broad area with many different components, a number of areas of specialization are being proposed. The five required courses (MSA6701 Legal Issues in the Domestic and International Sports Industry; MSA6702 Sports Administration Research and Policy Analysis; MSA6703 Financial Administration in Sports; MSA6704 Internship I or Individual Job-related Project; and MSA6705 Strategic Planning, Implementation and Evaluation [capstone course]) are M.S.A. courses and account for 15 credits of the 36-credit program. To satisfactorily complete an area of specialization, students must complete an additional 15 credits of the program in the area of specialization. The remaining six credits for the degree requirements can be chosen as electives taken from other M.S.A. courses. No more than six credits will be waived for previous experience that is equivalent to any course offering.

Each course will have a standardized syllabus with specific learning outcomes. Textbooks will be selected for each class — based on content relative to the topics — by the faculty in concert with the administrators of the program. Each course will have at least one required textbook. The nature of the courses also mandates the use of case studies that will link the practical application with theory.

A. Required Courses
All students enrolled in the M.S.A. program must complete the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MSA6701</td>
<td>Legal Issues in the Domestic and International Sports Industry</td>
</tr>
<tr>
<td>MSA6702</td>
<td>Sports Administration Research and Policy Analysis</td>
</tr>
<tr>
<td>MSA6703</td>
<td>Financial Administration in Sports</td>
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<tr>
<td>MSA6704</td>
<td>Internship I or Individual Job-related Project</td>
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<tr>
<td>MSA6705</td>
<td>Strategic Planning, Implementation and Evaluation (Capstone Course)</td>
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</tbody>
</table>

B. Areas of Specialization
Sports administration includes many components that range from administering professional sports teams and their facilities to fitness centers and processes to recreational facilities and operations. In addition to the required courses, the M.S.A. program will include areas of specialization as well as general electives. The initial program offerings are as follows:

Sports Administration (any five courses)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MSA6601</td>
<td>Organizational Leadership and Team Development</td>
</tr>
<tr>
<td>MSA6602</td>
<td>Facility Development, Administration and Programming</td>
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<tr>
<td>MSA6603</td>
<td>Sports Marketing and Promotions</td>
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<tr>
<td>MSA6604</td>
<td>Sports in a Social Context</td>
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<tr>
<td>MSA6605</td>
<td>Legal and Professional Ethics in Sports</td>
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<tr>
<td>MSA6606</td>
<td>Group Dynamics</td>
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<tr>
<td>MSA6607</td>
<td>Human Resource Administration in Sports Organizations</td>
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<tr>
<td>MSA6608</td>
<td>Sports Risk Assessment</td>
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<tr>
<td>MSA6609</td>
<td>Communications and Media Relations</td>
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<tr>
<td>MSA6610</td>
<td>Strategies in Fundraising and Development</td>
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Coaching Theory and Strategies (any five courses)

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<tr>
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<tr>
<td>MSA6605</td>
<td>Legal and Professional Ethics in Sports</td>
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<tr>
<td>MSA6608</td>
<td>Sports Risk Assessment</td>
</tr>
<tr>
<td>MSA6611</td>
<td>Coaching Leadership</td>
</tr>
<tr>
<td>MSA6612</td>
<td>Coaching Theory, Methods and Issues</td>
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<tr>
<td>MSA6613</td>
<td>Coaching Psychology</td>
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<tr>
<td>MSA6614</td>
<td>Assessing Human Performance</td>
</tr>
<tr>
<td>MSA6615</td>
<td>Effective Team Administration</td>
</tr>
<tr>
<td>MSA6633</td>
<td>Weight Training and Conditioning</td>
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</tbody>
</table>

Electives

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MSA6624</td>
<td>Organization and Administration of Sports</td>
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<tr>
<td>MSA6625</td>
<td>Physiological Basis of Physical Fitness</td>
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<tr>
<td>MSA6626</td>
<td>Nutrition for Sports and Fitness</td>
</tr>
<tr>
<td>MSA6628</td>
<td>Valuing Diversity</td>
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<tr>
<td>MSA6629</td>
<td>Motivation and Performance</td>
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<td>MSA6630</td>
<td>Global Sports</td>
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<tr>
<td>MSA6634</td>
<td>Sports Security</td>
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<tr>
<td>MSA6635</td>
<td>Events Planning and Administration</td>
</tr>
<tr>
<td>MSA6636</td>
<td>Internship II</td>
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</table>

Graduate Certificate Programs
Students who successfully complete an area of specialization will also receive a graduate certificate in the appropriate program.

Coaching Theory and Strategies
This 18-credit, six-course certificate is designed to provide students with skills and knowledge to address coaching at all levels of sports. Coaching methodology, nutrition, conditioning, human performance and team administration are areas studied in the program.

Sports Administration
This 18-credit, six-course certificate focuses on the skills required for a career in the administration of professional and amateur sports. This course of study can lead to employment in areas such as sports organizations, regulatory agencies, private and/or public facilities and athletic departments at the college and university level, as well as related areas.
Course Offerings

Sports Administration
School of Administrative Science

Required Courses

MSA6701 3 Credits
Legal Issues in the Domestic and International Sports Industry
This course will study current issues within various areas of the domestic and international sports industry including legal liability of coaches, administrators and players; potential issues for facilities and sponsored events; regulations of amateur sports; legal relationships in professional sports; antitrust aspects of sports activities; and risk management.

MSA6702 3 Credits
Sports Administration Research and Policy Analysis
This course will explore current issues and trends relative to the administration and operation of various types of sports and recreation programs. Research into leadership models that have led to productive programs as well as the implication of policy on sports and recreation will also be studied.

MSA6703 3 Credits
Financial Administration in Sports
This course is designed to provide an understanding of different financial decisions that confront the sports industry. In addition to basic accounting skills, the course will explore financial-statement analysis, working capital and budgeting.

MSA6704 3 Credits
Internship I or Individual Job-related Project
This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and specific goals. Although efforts will be made to match students with appropriate opportunities to enhance their learning, some students may not be able to perform such an internship due to work or family responsibilities. In those cases, a specific job-related project can be approved by the program director.

MSA6705 3 Credits
Strategic Planning, Implementation and Evaluation
This course is the capstone course of the program. Students will be expected to develop either an operational or strategic plan, an implementation schedule and plan and an evaluation process for the plans. This course can be taken once the student satisfactorily completes 27 credits in the program.

Sports Administration

MSA6601 3 Credits
Organizational Leadership and Team Development
This course will study how teams are organized and the role of leadership in motivating team performance. Topics to be covered include sports leadership in the sport and community, group and team development and the role of the leader in moving the organization to their vision of success.

MSA6602 3 Credits
Facility Development, Administration and Programming
Principles and applications of planning, designing, financing, budgeting and construction in the sports field, as well as the use of facilities for sports and non-sport activities, will be explored. Facility operations, event management and planning and equipment purchasing, maintenance and inventory will be included in the course.

MSA6603 3 Credits
Sports Marketing and Promotions
This course will explore the concepts of marketing, promotions and public relations for various components of the sports industry. At the foundation of marketing and promotion are strategic planning and coordination of efforts. Marketing strategies and varying consumer behaviors in different sports venues will be analyzed as social and economic issues related to buying and selling of sports. The inclusion of sponsorships and endorsements into the marketing efforts will also be included.

MSA6604 3 Credits
Sports in a Social Context
This course will explore the concepts of sports and their sociological impact on a nation or state as well as the impact of the role of sports organizations as well as a social institution.

MSA6605 3 Credits
Legal and Professional Ethics in Sports
This course will investigate the moral and legal framework for those in sports. Ethical dilemmas and how personal traps may affect the individual's career will be discussed. The course will also explore the differences between law and ethics, the concept of moral theory and issues of perception as well as ethical behavior. Case studies will be included.

MSA6606 3 Credits
Group Dynamics
This course will explore the basic nature of groups and how productive groups develop. Topics will include the various models of group development, the stages of development, informal and formal groups, team building and changing informal work groups or team norms.

MSA6607 3 Credits
Human Resource Administration in Sports Organizations
This course will explore administrative regulations, techniques, procedures and policies for effective personnel administration; and legal and ethical parameters that guide personnel in organizations. Additional topics include communication, compensation, negotiation, appraisal processes, training and development and decision making.

MSA6608 3 Credits
Sports Risk Assessment
This course will investigate the costs of sporting accidents, which can be a significant financial and emotional burden for an organization. Although organizations look at legal liabilities, there are other costs that organizations need to consider. Case studies and scenarios will be utilized in the class.

MSA6609 3 Credits
Communications and Media Relations
This course will explore practical techniques in understanding the media, how to build relationships with journalists, how to communicate messages effectively and what steps to take when faced with a crisis. The course aims to equip students with common-sense tools to properly manage their message while handling a variety of media that range from newspapers to radio and TV to the internet.

MSA6610 3 Credits
Strategies in Fundraising and Development
This course will explore ways organizations can capitalize on fundraising activities to improve market share and visibility. Examples from private and volunteer organizations will be used in the course.

Coaching Theory and Strategies

MSA6611 3 Credits
Coaching Leadership
This course will explore leadership skills needed for those entering into coaching positions.
Sports Administration

**MSA6612**  
3 Credits  
**Coaching Theory, Methods and Issues**  
This course will explore the foundations for coaching as a profession and how coaching has influenced society and been influenced by society. Topic areas will include the psychology of coaching, coaching players and the relationship between players and coaches as well as coaches and colleagues.

**MSA6613**  
3 Credits  
**Coaching Psychology**  
This course will investigate the foundations of the psychological factors related to coaching. The course will review the concepts of sports psychology and how coaches can encourage optimum performance from the players.

**MSA6614**  
3 Credits  
**Assessing Human Performance**  
This course will explore the concepts of human performance for sports and appropriate assessment processes. As organizations seek to attain a certain performance goal, there is a need to ensure the individuals involved meet the requisite standards of performance or have the ability to do so. Various assessment tools will be reviewed as will case studies that demonstrate standards in use.

**MSA6615**  
3 Credits  
**Effective Team Administration**  
This course will investigate how effective teams are developed. There are a number of essential concepts that will be studied, including assessing a current team, defining team objectives and criteria of success, establishing team capabilities, defining ground rules, assessing the team culture and behavior, developing effective personal collaboration processes, conducting effective meetings and conducting good team-decision processes.

**Electives**

**MSA6624**  
3 Credits  
**Organization and Administration of Sports**  
This course will study the fundamental skills of sports administration including planning, organizing, staffing, coordinating and budgeting in public, not-for-profit and for-profit sectors.

**MSA6625**  
3 Credits  
**Physiological Basis of Physical Fitness**  
This course will explore the physiological basis for testing physical fitness, the range of methods for assessing power, muscular strength and endurance and flexibility. Different tests will be studied as well as methods for improving fitness in participants.

**MSA6626**  
3 Credits  
**Nutrition for Sports and Fitness**  
This course will study fundamental principles of nutrition and physical training for sports and exercise. The role of nutrition and physiology will be investigated as they relate to performance. Nutritional needs for specific sports and appropriate preparation for competition, the use of performance-enhancement supplements, screening procedures for various substances and legal issues will also be explored.

**MSA6628**  
3 Credits  
**Valuing Diversity**  
This course will explore the concepts of diversity in teams. Diversity includes various categories such as gender, age, education and nationality. As individuals work together, there is a need to understand individual differences that may influence the operations. The course will use case studies in addition to lectures.

**MSA6629**  
3 Credits  
**Motivation and Performance**  
This course will examine the impact of motivation on performance in the area of sports administration. Various motivational theories, concepts of positive reinforcement and recognition programs and maximization of performance relative to individual and group will be studied.

**MSA6630**  
3 Credits  
**Global Sports**  
Sports extend beyond national boundaries. This course will explore sports from a global perspective by examining the similarities and differences among various national sports cultures. The course will also investigate the types of sports activities found in specific cultures in order to determine the potential for expansion of activities into other international venues.

**MSA6633**  
3 Credits  
**Weight Training and Conditioning**  
This course will explore the theory and practice behind weight training and conditioning of sports participants. Included will be assessments and exercises designed to increase strength and endurance. Assessments will range from novices to professional-level athletes.

**MSA6634**  
3 Credits  
**Sports Security**  
This course will investigate the various strategies employed for major sports events. Ensuring a safe and secure environment for the players and spectators is necessary for organizational survival. The course will employ case studies and scenarios to develop potential strategies.

**MSA6635**  
3 Credits  
**Events Planning and Administration**  
This course will explore choosing the appropriate venue, presentations and exhibits; selecting and managing vendors; and providing onsite coordination. In addition, establishing priorities, building alliances and defining duties and responsibilities for various functional areas will be investigated.

**MSA6636**  
3 Credits  
**Internship II**  
This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student’s background and specific goals and must be approved by the program director.

**MSA6638**  
3 Credits  
**Community Relations in Sports Organizations**  
This course will explore how community relations departments make a significant positive impact on both a sports team and in the community in which it resides. Course content focuses on customer/fan relations, working with nonprofit organizations, event planning, player appearances and social media. The course aims to prepare students with every aspect involved in the field and gives an inside look into one of the smallest yet most important departments in sports.
Student Services Administration (M.A.)

The Master of Arts (M.A.) in student services administration was offered beginning in January 2011. This degree is designed for individuals pursuing careers in administrative and support positions in higher education. The relationship of universities to the federal government, to states and to local communities has taken on entirely new dimensions. Until now, the only educational leadership program available at FDU focused on grades K-12.

The 36-credit, nonthesis program consists of 18 credits of core courses, which include a three-credit course in college student personnel internship and 18 credits of electives. The required courses include: MSSA6601 Research Methods; MSSA6602 College Student Development; MSSA6603 Social Issues in Higher Education; MSSA6604 Governance, Planning and Finance in Higher Education; MSSA6605 The Law and Student Affairs; and MSSA6606 Student Services Internship. There is a required master’s project.

Classes will be offered online, in-person at the Metropolitan Campus, Teaneck, New Jersey; at the Florham Campus, Madison, New Jersey; at other offsite locations where the University has a partnership to offer graduate degrees; and online.

Students can specialize in one of four areas including: admission and financial-aid administration, institutional risks administration, intercollegiate sports administration and on-campus student administration. The program is offered through the School of Administrative Science of the Anthony J. Petrocelli College of Continuing Studies.

Admission Requirements
1. Must have completed a bachelor's degree program with a minimum cumulative grade point ratio of 3.00. (No GMAT or GRE test score is required.)
2. International students must take the Test of English as a Foreign Language.

Requirements for the Master of Arts Degree

The M.A. in student services administration is a 36-credit, nonthesis program requiring completion of 18 credits of core courses, including a 3-credit MSSA6606 Student Services Internship plus 18 credits of electives.

Curriculum

Whether taken in-person, blended or fully online, the M.A. in student services administration offers an outstanding degree that will prepare students for leadership positions in higher education. The curriculum integrates theory and practice with hands-on learning to provide a thorough understanding of current issues facing colleges and universities.

Required Courses (18 credits)

All students enrolled in the M.A. in student services administration must complete the following:

- MSSA6601 Research Methods
- MSSA6602 College Student Development
- MSSA6603 Social Issues in Higher Education
- MSSA6604 Governance, Planning and Finance in Higher Education
- MSSA6605 The Law and Student Affairs
- MSSA6606 Student Services Internship

Areas of Specialization and Certificates (18 credits)

The specialization in college student services administration encompasses many different components that range from recruitment and admissions to administering financial aid, on-campus institutional risk, on-campus student administration and intercollegiate sports. Students in the M.A. in student services administration will be able to complete work in an area of specialization that will lead to a certificate. There are four certificates for the program and their order of implementation are:

On-campus Student Administration

Students must complete the following three required courses:

- MSSA6602 College Student Development
- MSSA6604 Governance, Planning and Finance in Higher Education
- MSA6605 The Law and Student Affairs

Admissions and Financial Aid Administration

Students must complete the following course:

- MSSA6604 Governance, Planning and Finance in Higher Education

Students must select the following to complete the certificate:

- MSSA6611 Program Design and Instructional Strategies for Adults in Higher Education
- MSSA6612 Program Design and Strategies for Special Populations in Higher Education
- MSSA6613 Post-secondary Student Affairs Issues and Management
- MSSA6626 Mentoring Students for Success

Intercollegiate Sports Administration

Students must complete the following two courses:

- MSSA6604 Governance, Planning and Finance in Higher Education
- MSSA6623 Legal Issues in Domestic College Sports

Students must select the following to complete the certificate:

- MSSA6602 College Student Development
- MSSA6620 Marketing and Promotion for College Sports
- MSSA6622 Financial Administration in College Sports

Elective Master of Sports Administration course approved by adviser

Institutional Risks Administration

Students must complete the following six courses:

- MSSA6604 Governance, Planning and Finance in Higher Education
Student Services Administration

MSSA6605 The Law and Student Affairs
MSSA6608 Technology Foundations in Higher Education
MSSA6616 Threat Assessment and Risk Analysis in Higher Education
MSSA6617 Crisis Management for Higher-education Administrators
MSSA6618 Impact of Terrorism on College Safety

If students already have a graduate degree and would like to earn a post-master's certificate, 24 credits (8 three-credit courses) must be successfully completed.

Electives (18 credits)

Students can select any six courses from Areas of Specialization and Certificates.

Master's Capstone Project

Aspiring M.A. candidates will find the graduate capstone project to be the ultimate challenge. It requires the ability to apply the skills, methods and knowledge gained through their study of student services administration.

Students will be required to complete MSSA6100 Master Project during their last term of study in the student services administration program. Although it is required for graduation, no credit is awarded for the project. Requirements — including parameters for the final project and specific benchmarks that must be met — will be introduced early in the program during the MSSA6601 Research Methods course. Full-time faculty will evaluate the project to determine whether it meets graduation requirements.

Course Offerings

Student Services Administration
School of Administrative Science

Core Course Requirements

MSSA6100 0 Credits
Master Project
This noncredit course is part of the degree requirements and must be completed in order to graduate from the program.

MSSA6601 3 Credits
Research Methods
This course provides an introduction to quantitative methods and procedures through the study of the logic and procedures of educational and social research. Information about the various stages of the research process with attention to measurement, sampling, design, data analysis and application will be included in the course.

MSSA6602 3 Credits
College Student Development
This course provides an introduction to the theory and practice of college student development and focuses on the variety of non-instructional services that impact the student's growth as an individual and as a member of the campus community.

MSSA6603 3 Credits
Social Issues in Higher Education
This course provides an analysis of the historical and current social issues that shape the experience of a college student. Topics include gender/sexual identity, ageism, racism, ethnocentrism and religious intolerance, among others.

MSSA6604 3 Credits
Governance, Planning and Finance in Higher Education
This course provides an overview of college governance and explores the relationship between program development, planning and budgeting to management in higher-education settings, resource acquisition and alumni/trustee relations.

MSSA6605 3 Credits
The Law and Student Affairs
This course provides an overview of relevant state/federal statutes (FERPA, ADA, etc.). In addition, the development and implementation of campus judicial models are reviewed with a focus on best practices.

MSSA6606 3 Credits
Student Services Internship
All students will be required to complete the graduate course MSSA6606 Student Services Internship. To describe and analyze the internship experience, students will complete a portfolio, which must document what was done and explain how the student achieved the objectives. This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and specific goals and the opportunities will be in higher education. Although efforts will be made to match students with appropriate opportunities to enhance their learning, some students may not be able to perform such an internship due to work or family responsibilities. In those cases, a specific job-related project can be approved by the program director.

Specializations and Electives

All candidates must take 18 credits of electives. The electives may be chosen from the M.A. in student services administration with the approval of the student's adviser.

MSSA6608 3 Credits
Technology Foundations in Higher Education
This course provides an overview of the following topics related to planning and using technology: instructional technology models; internet resources; web design; networking and database fundamentals; technology standards; technology-integration strategies; assessment and evaluation; societal, legal and ethical issues; social media and related strategies; and collaborative planning of technology programs.

MSSA6610 3 Credits
Multiculturalism, Diversity and Difference: Theory, Research and Practice in Student Affairs
This course explores issues of multiculturalism, diversity and differences as they relate to work in student personnel through assignments, exercises, discussions, readings and reflection.

MSSA6611 3 Credits
Program Design and Instructional Strategies for Adults in Higher Education
This course explores program planning, development and evaluation for adult and continuing-education programs. The course will include diagnosis of client needs; effective system of planning, development and evaluation for adult-education programs; program scheduling; and budget and resource planning.

MSSA6612 3 Credits
Program Design and Strategies for Special Populations in Higher Education
This course explores designing programs for the wide range of populations attending colleges. This includes students with disabilities, bilingual populations and other targeted groups that add to the diversity of institutions.

MSSA6613 3 Credits
Post-secondary Student Affairs
Issues and Management
This course is intended for higher-education professionals in leadership positions and includes topics such as student-affairs issues, co-curricular programming, residence life, substance abuse, judicial issues and related public relations.
MSSA 6614
3 Credits
Administration of College Financial Aid
This course explores the current laws, rules and regulations relative to financial aid at the federal and state levels as well as the processes needed to ensure students receive the appropriate funds. Included in the course are scholarship design, work-study programs and supplemental financial-aid programs.

MSSA 6616
3 Credits
Threat Assessment and Risk Analysis in Higher Education
This course investigates approaches for maintaining a safe and secure facility through planning for possible threats. The topics include vulnerability assessments, hazard mitigation and physical-security assessments. Students will conduct a vulnerability assessment for their organization and will develop a comprehensive response plan.

MSSA 6617
3 Credits
Crisis Management for Higher-education Administrators
This course explores the assessment and preparation of plans for addressing crises that may occur within a college setting. The components will include crisis-management planning, response and recovery efforts. In addition to safeguarding the students and faculty, there is a need to consider the psychological impact on the students and faculty. This course focuses on the broad range of issues such as natural disasters, terrorist activity, violent students and active-shooter issues on college property.

MSSA 6618
3 Credits
Impact of Terrorism on College Safety
This course investigates the latest school-violence trends, including fatal and non-fatal shootings and gang activity and the threat of terrorist attacks on American schools. Case studies of incidents from throughout the world are studied and assessed to determine best practices.

MSSA 6620
3 Credits
Marketing and Promotion for College Sports
The concepts of marketing, promotions and public relations for intercollegiate sports are explored. Strategic planning and coordination of efforts are also included in the course. Marketing strategies, varying consumer behaviors and different sports venues will be analyzed as social and economic issues related to marketing sports and their related activities.

MSSA 6622
3 Credits
Financial Administration in College Sports
This course provides an understanding of different financial decisions that confront the intercollegiate sports industry. In addition to basic accounting skills, the course explores financial-statement analysis, working capital and budgeting.

MSSA 6623
3 Credits
Legal Issues in Domestic College Sports
This course studies current issues within various areas of domestic sports including legal liability of coaches, administrators and players; potential issues for facilities and sponsored events; regulations of amateur sports; legal relationships in professional sports; antitrust aspects of sports activities; and risk management.

MSSA 6626
3 Credits
Mentoring Students for Success
The role of individuals involved in the area of student affairs is broad, and it involves counseling for academic success and future achievements. This course explores the mentoring processes as well as concepts of counseling. Case studies will be used to supplement lectures and research.

MSSA 6619
3 Credits
Grant Writing and Administration in Higher Education
This course provides students with an understanding of the process of writing successful grant proposals, including responding to the Request for Proposal, letter proposals, defining needs, methodology, timelines and the budget. The essential elements of preparing a winning proposal that can secure funding for major initiatives are reviewed, and students will prepare and submit a full grant proposal relevant to their organizations.

Taxation (M.S.)

Teaching (M.A.T.)
See Education, Teaching, pages 126–129.

Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.)
See Education, Teaching, pages 129–130.
Overseas Studies

Wroxton College

Wroxton Near Banbury, Oxfordshire, England

Nicholas D. J. Baldwin, Dean

Wroxton College is the British campus of the University, situated in the ancestral home of Lord North at Wroxton Abbey on 56 acres of land in Oxfordshire. It is centrally located in England, lying near Banbury, between Oxford and Stratford-upon-Avon and 75 miles away from London.

Admission Requirements

1. A graduate studies application.
2. Official transcripts from all accredited institutions of higher learning in which the student has enrolled and, if matriculating:
3. The Graduate Record Examinations (GRE) test scores.
4. Three letters of recommendation (preferably from former professors).
   In addition, applicants must have an undergraduate cumulative grade point ratio of 3.00 or better (based on a 4.00 system).
Graduate courses in a variety of graduate programs are usually available at Wroxton College during the annual summer session. Reference this catalog for specific programs of interest to seek more information about applications to these courses and course details.

For Information

For information contact
FDU’s Wroxton College/Study-abroad Office
Fairleigh Dickinson University
285 Madison Avenue
Madison, New Jersey 07940
(973) 443-8086 or 1 (800) 338-8803.

Master of Science in Hospitality Management Studies (M.S.)

Students can now earn a Master of Science in hospitality management studies at Fairleigh Dickinson University’s picturesque Wroxton College, situated on a 56-acre country estate just 90 minutes from London. The first degree program to be offered at Wroxton College, this program will equip students with the knowledge and skills to become leaders in the international hospitality field.

The 33-credit Master of Science in hospitality management studies is structured to meet the educational needs of adult learners working as managers, entrepreneurs, educators or other professionals in the tourism and hospitality industry. The program is designed to provide a hospitality management education with an academically rigorous, yet flexible, program of study that meets the requirements for a professional master’s degree.

For working adults seeking to upgrade their professional skills to enhance their careers, the degree program increases analytical, managerial and leadership competencies and provides graduates with the requisite preparation for career advancement in various hospitality-related professional areas.

This program is offered under the auspices of the International School of Hospitality and Tourism Management, Anthony J. Petrocelli College of Continuing Studies.

Admission Requirements

Candidates for admission to the Master of Science in hospitality management studies degree program could be managers, business owners or educators or hold other professional positions related to the hospitality industry. The credentials required for admission as a matriculated student include the following:
1. A graduate application for admission and nonrefundable application fee.
2. A bachelor’s degree from an accredited college or university with a minimum cumulative grade point ratio (GPR) of 2.75. (Applicants with a GPR of less than 2.75 may be admitted as pre-matriculated students on probation.)
3. Official transcripts from all colleges and universities previously attended.
4. English-language proficiency, both written and verbal.
5. Industry work experience preferred (applicants without industry work experience may be required to take foundation courses HRTM 6100 Hospitality Operations Management and HRTM 6200 Tourism Destination Management upon evaluation).
6. Personal statement of 400 words explaining reasons for pursuing hospitality graduate studies.
7. Personal interview with a graduate program adviser.

Additional classes may be required as a prerequisite for acceptance into the program. Applicants who are unable to provide official documents at the time of enrollment may register as nonmatriculated or nondegree students with the approval of a graduate faculty adviser.

To apply visit http://view2.fdu.edu/admissions/graduate-admissions/apply-now-for-graduate-admission-at-fdu/.

For Additional Information

For additional information and the course outlines, admission requirements and requirements for the degree go to pages 161–162.

Course Descriptions

Vancouver Campus
Vancouver, British Columbia
Canada

Cecil A. Abrahms, Campus Provost

In fall 2007, Fairleigh Dickinson University opened an overseas campus in beautiful downtown Vancouver, British Columbia, Canada. FDU students in New Jersey have the opportunity to study at this campus during winter and summer sessions each year. Graduate courses, which include a study-abroad component in Vancouver, are offered regularly by one or more of the colleges in New Jersey. Please consult the online class schedule on WebAdvisor (http://webadvisor.fdu.edu) each term for overseas courses at the University’s campus in Vancouver.

For More Information

For more information contact
Office of Admissions
Vancouver Campus
842 Cambie Street
Vancouver, BC V6B 2P6
By phone at 1-877-538-8002 toll free
U.S. and Canada (604) 682-8112
Email vancouver_admissions@fdu.edu.

Master of Administrative Science (M.A.S.)

The Master of Administrative Science (M.A.S.) graduate degree program, offered through the University’s Anthony J. Petracelli College of Continuing Studies School of Administrative Science, is a 30-credit program at Vancouver.

It utilizes primarily in-person (but also blended and online) instruction and is designed to develop and sharpen critical managerial and leadership skills among students who aspire to careers in which leadership skills are essential and who desire a degree program that offers specializations that are not commonly offered in more traditional programs. The curriculum ranges widely in scope and range of subject matter — with a core curriculum, six specializations and a capstone course.

The core and specialization courses bridge two competency areas: 1) administrative competencies and 2) analytical and decision-making competencies. Students must take a total of six courses (18 credits) in administrative competencies, three courses (9 credits) in analytical and decision-making competencies and one capstone course (MADS6612 Seminar in Strategic Management – Capstone). All core and capstone courses (18 credits) are delivered in person. Specialization courses may be delivered in person, via blended instruction or online.

Six specializations are offered to students in Vancouver — computer security and forensic administration, emergency management administration, global health and human services administration, global leadership and administration, global technology administration and human resources administration.

Admission Requirements

Students will be admitted to the M.A.S. program on an application-deadline model, with an intake each term.

For admission, students must meet the following criteria:
1. Graduated from a four-year, regionally accredited undergraduate program.
2. Maintained a cumulative grade point ratio of at least 2.70 (out of 4.00) in their undergraduate studies (or the equivalent).
3. Submitted official transcripts of their undergraduate studies.
4. Completed an application form that can be found on the M.A.S. program website, including a 1000-word essay.
5. Demonstrate proficiency in communication of the English language (for international students whose first language is not English). This can be accomplished through one of the following:
   a. A TOEFL-IBT score of 79 or higher (TOEFL-CBT score of 213 or higher; TOEFL-PBT score of 550 or higher)
   b. An IELTS overall band of 6.0 or higher.
6. Submitted two letters of recommendation (at least one from an academic reference) using a “structured” recommendation form provided by the University’s graduate admissions office in Vancouver.

Requirements for the Master of Administrative Science Degree, Vancouver Campus

Core Administrative Competency Courses (9 credits)
MADS6600
  Theory and Practice of Administration.............................3
MADS6602
  Personnel Administration........................................3
MADS6604
  Ethics and Public Values....................................3

Core Analytic and Decision-making Competency Courses (6 credits)
MADS6601
  Financial Administration....................................3
MADS6610
  Organizational Decision Making.............................3

Specialization Courses (12 credits)
Qualify for either Administrative or Analytical Decision-making Competencies
MADS.................................................................12

Capstone Course (3 credits)
MADS6612
  Seminar in Strategic Management – Capstone*.......................3

*Taken after completion of 24 credits.
Areas of Specialization

**Computer Security and Forensic Administration**
Choose any four courses

- MADS6637 Computer Systems Seizure and Examination
- MADS6638 Computer Security Administration
- MADS6639 The Forensic Expert
- MADS6697 Current Issues in Cyber Forensics
- MADS6701 Introduction to Computer Network Security
- MADS6735 Introduction to Countermeasures for Malware

**Emergency Management Administration**
Choose any four courses

- MADS6617 Emergency Management and Safety Administration
- MADS6633 GIS and Emergency Administration
- MADS6634 Community Threat Assessment and Risk Analysis
- MADS6636 Global Preparedness for Catastrophic Emergencies
- MADS6648 Disaster Recovery and Organizational Continuity
- MADS6715 Special Topics: Global Terrorism and Emergency Management Preparation

**Global Health and Human Services Administration**
Choose any four courses

- MADS6628 Building Strategic Partnerships
- MADS6642 Global Health and Human Services Systems
- MADS6643 Community Needs Assessment and Qualitative Analysis for Health and Human Services
- MADS6644 Law, Ethics and Policy for Health and Human Services

Choose any four courses

- MADS6618 Leadership Plus
- MADS6654 Community Threat Assessment and Risk Analysis
- MADS6653 Global Citizenship Seminar
- MADS6658 Leadership: Global Advanced Scholarship and Practice
- MADS6661 Managing Organizational Change
- MADS6675 Optimum Leadership
- MADS6706 Collaborative Leadership
- MADS6709 Special Topics: Creativity, Change and 21st-century Leaders
- MADS6717 Special Topics: Leading Out of the Mainstream

**Global Technology Administration**

Students are required to take the following two courses

- MADS6605 Principles of Information Systems
- MADS6670 Global Technology Project Management

Choose any two courses

- MADS6618 Leadership Plus
- MADS6638 Computer Security Administration
- MADS6677 Planning for Change in Information Technology

**Global Leadership and Administration**

Choose any four courses

- MADS6606 Administrative Leadership in Complex Organizations
- MADS6609 Productivity and Human Performance
- MADS6615 Global Leadership
- MADS6618 Leadership Plus
- MADS6654 Community Threat Assessment and Risk Analysis
- MADS6653 Global Citizenship Seminar
- MADS6658 Leadership: Global Advanced Scholarship and Practice
- MADS6661 Managing Organizational Change
- MADS6675 Optimum Leadership
- MADS6706 Collaborative Leadership
- MADS6709 Special Topics: Creativity, Change and 21st-century Leaders
- MADS6717 Special Topics: Leading Out of the Mainstream

**Human Resources Administration**

Choose any four courses

- MADS6608 Organizational Communication and Conflict Resolution
- MADS6609 Productivity and Human Performance
- MADS6620 Human Resources Systems: Approaches and Techniques for the Modern Workplace
- MADS6661 Managing Organizational Change
- MADS6662 Customer Service for Public and Not-for-Profit Organizations

**Course Descriptions**

Master of Science in Hospitality Management Studies (M.S.)

The Master of Science degree in hospitality management studies, which consists of 33 credits, is structured to meet the educational needs of adult learners working as managers, entrepreneurs, educators or other professionals in the hospitality industry. It is designed to provide an educational alternative for working professionals with an academically rigorous, yet flexible, program of study that meets the requirements for a professional master's degree. For working adults seeking to upgrade their professional skills to enhance their careers, the degree program increases analytical, managerial and leadership competencies and provides graduates with the requisite preparation for career advancement in various hospitality-related professional areas.

This program is offered under the auspices of the International School of Hospitality and Tourism Management, Anthony J. Petrocelli College of Continuing Studies.

Admission Requirements

Candidates for admission to the Master of Science in hospitality management studies degree program could be managers, business owners or educators or hold other professional positions related to the hospitality industry. The credentials required for admission as a matriculated student include the following:

1. A graduate application for admission and nonrefundable application fee.
2. A bachelor's degree from an accredited college or university with a minimum cumulative grade point ratio (GPR) of 2.75. (Applicants with a GPR of less than 2.75 may be admitted as pre-matriculated students on probation.)
3. Official transcripts from all colleges and universities previously attended.
4. English-language proficiency, both written and verbal.
5. Industry work experience preferred (applicants without industry work experience may be required to take foundation courses HRTM6100 Hospitality Operations Management and HRTM6200 Tourism Destination Management upon evaluation).
6. Personal statement of 400 words explaining reasons for pursuing hospitality graduate studies.
7. Personal interview with a graduate program adviser.

Additional classes may be required as a prerequisite for acceptance into the program. Applicants who are unable to provide official documents at the time of enrollment may register as nonmatriculated or nondegree students with the approval of a graduate faculty adviser.

To apply visit http://view2.fdu.edu/admissions/graduate-admissions/ to submit your application (see http://view2.fdu.edu/admissions/graduate-admissions/apply-now-for-graduate-admission-at-fdu/).

For Additional Information

For additional information and the course outlines, admission requirements and requirements for the degree go to pages 161–162.

Course Descriptions

Faculty and Administration

Faculty

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A.B., Cornell University; M.S.W., M.B.A., Ph.D., University of Pittsburgh

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General Counsel

Martha C. Young, B.S.
Assistant to the General Counsel

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Associate Vice President for University Communications

Carol T. Black, M.A.
Director of University Publications

William Kennedy, M.A.S.
Director of Web Operations

Dina S. Schipper, B.A.
Director of University Public Relations

Duff Sheffield, B.S.
General Manager and Program Director, WFDU (FM)

Hector L. Torres, B.F.A.
University Designer

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University Provost and Senior Vice President for Academic Affairs

Norina Lapp
Assistant to the University Provost and Senior Vice President for Academic Affairs

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Editor-in-Chief of The Literary Review

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Director of Veterans Services for Operations

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Director of Veterans Services for Outreach

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Judith Kaufman, Ph.D.
Director, Metropolitan Campus

James Gifford, Ph.D.
Director, Vancouver Campus

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Director, Online and Off-campus Programs

Center for Teaching and Learning with Technology

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Director of Center for Teaching and Learning with Technology

Center for Instructional Design

David Lavoie, Ph.D.
University Director of Center for Instructional Design

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Associate University Librarian and Director of Business, Metropolitan Campus

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Elizabeth Dikovics
Special Assistant to the Associate Vice President for Admissions and Financial Aid

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Director of Undergraduate Admissions, Florham Campus
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Manager of Credit and Collections/Student Loan

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Vice President for Facilities and Auxiliary Services
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Acting Associate Director of Facilities/Project Manager — Florham Campus
Michael DiArchangel
MEP Manager — Florham Campus
Michael Ervelli
Buildings and Grounds Manager — Florham Campus
Peter Bonasia
Acting Associate Director of Facilities/Project Manager — Metropolitan Campus
Augusto Paule
MEP Manager — Metropolitan Campus
Michael Noe
Buildings and Grounds Manager — Metropolitan Campus

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Director of Employee Benefits and Training
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Manager of Telephone and Voice Services
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University Director of Technologies and Special Projects

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Founding Director of School of Public and Global Affairs

Public Administration Institute
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Director

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Gail Lemare
University Risk Manager

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Acting Associate Director of Facilities/Project Manager — Metropolitan Campus
Augusto Paule
MEP Manager — Metropolitan Campus
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(Gourmet Dining Services, Inc.)
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Director — Metropolitan Campus
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Mail Room
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Manager of Telephone and Voice Services
Lane Goldstein
University Director of Technologies and Special Projects

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University Director of IT Client Services, Support and Process Management

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Special Assistant to the Campus Executive

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Deputy Campus Executive
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Assistant to the Campus Executive
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Center for Academic Student Services
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Director
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Director, Metropolitan Campus

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Director and Protestant Chaplain
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Co-director of Counseling Service
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Florham Campus Director
Grace Hottinger
Coordinator of Admissions

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Dean of Students
Childerick Barthelus, M.A.S.
Assistant Dean of Students for Commuter Students
Stephen Dembowski, M.B.A.
Assistant Dean of Students for Athletic Engagement and Judicial Affairs
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Associate Dean
Elizabeth Feeley, M.S.
Associate Dean of Student Services

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Chair
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Alexey Teslja, Ph.D.
Chair
Communication Studies Department
Gary Radford, Ph.D.
Chair
Health and Physical Education Department
Elizabeth Feeley, M.S.
Chair

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O dysseus Makridis, Ph.D.
Chair
Mathematics, Computer Science and Physics Department
Laila Kheirisat, Ph.D.
Chair

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Assistant Dean for Undergraduate Programs and Student Services
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Director of Executive M.B.A. Programs
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Director, Tax Program

Accounting, Taxation and Law Department
Ron West, J.D., C.P.A., C.F.P.®
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Chair

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Gwen Jones, Ph.D.
Chair
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Chair

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Director of Transfer Student Services

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**Puerta al Futuro Program**

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Director

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Senior Program Director

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Director

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Director

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Director

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Director

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Co-director
Marion McClary, Ph.D.
Co-director

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Boas Yu, Ed.D.
Associate Director of Graduate Nursing Program

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Juliana Lachenmeyer, Ph.D.
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Robert Prentky, Ph.D.
Director, M.A. Program in Forensic Psychology
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Director, Center for Psychological Services

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Lynda Kuit
Assistant to the Campus Provost

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Program Coordinator

B.A. in Individualized Studies Program
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Program Coordinator

B.S. in Information Technology Program
Vasudevan Janarthanan, Ph.D.
Program Coordinator

Fairleigh Dickinson University Press
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Director

Global Scholars Program
Gudrun Dreher, Ph.D.
Director

Enrollment Services
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Director

Learning Resources
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Director of Learning Resources and Support Programs and Business Manager

Marketing and Recruitment
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Director

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Jobin Mojtabavi, M.A.S.
Director

Technology and Information Services
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Director of Technical Operations

University Core
James Gifford, Ph.D.
Director

Wroxton College
Nicholas D.J. Baldwin, Ph.D.
Dean and Director of Operations
Florham Campus
Madison, New Jersey

Directions

From Northeast
Take I-287 across the Tappan Zee Bridge to exit 14A, Garden State Parkway. Follow Parkway South to exit 159, I-80 West. Follow I-80 West to I-287 South to exit 35 (NJ124). Turn left onto NJ124 East. Go 2.5 miles to FDU entrance on left.

From South
Take NJ Turnpike to exit 10, I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.

From East to West
Take I-80 to I-287 South (Exit 43). Exit I-287 at Route 124 East (exit 35). Go 2.5 miles to FDU entrance on the left.

From Newark Area
Take I-78 to 24 West (Morristown). Follow Route 24 West (Morriscown) and take exit 2A (Route 510 toward Morristown). Go to the first light and turn left onto Park Avenue. At the fourth traffic light (Wyndham Hamilton Park Hotel and Conference Center) turn right, winding past the conference center parking to the campus gate at the top of the hill.

From Pennsylvania
Take I-78 East to I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to the campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.
## Campus Buildings

<table>
<thead>
<tr>
<th>Building</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hennessy Hall (Mansion)</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Reuter’s Rock</td>
<td>Madison, New Jersey</td>
</tr>
<tr>
<td>Science Building</td>
<td>Madison, New Jersey</td>
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<tr>
<td>East Cottage</td>
<td>Madison, New Jersey</td>
</tr>
<tr>
<td>West Cottage</td>
<td>Madison, New Jersey</td>
</tr>
<tr>
<td>Martin F. Stadler, Patrick J. Zemmer, Hoffmann-La Roche Inc. Academic Building</td>
<td>Madison, New Jersey</td>
</tr>
<tr>
<td>Roberta Chavilles Ferguson and Thomas G. Ferguson Recreation Center</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Rothman Building-Aquisitions (Rothman Institute of Innovation and Entrepreneurship)</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Dreyfus Building</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Barn (Campus Safety, Campus Facilities/Maintenance, Web Lab)</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Maintenance Shops</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Maintenance Shops</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Chaîne House</td>
<td>Madison, New Jersey</td>
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<tr>
<td>John and Joan Monninger Center for Learning and Research</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Educational Opportunity Fund Office</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Public Relations Office</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Student Center</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Twinsbury Residence Halls</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Hamilton Twinsbury Hall</td>
<td>Madison, New Jersey</td>
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<td>Rutherford Hall (Residence Hall)</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Village Residence Halls</td>
<td>Madison, New Jersey</td>
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<td>Stirling Hall</td>
<td>Madison, New Jersey</td>
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<td>York Hall</td>
<td>Madison, New Jersey</td>
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<td>Penn Hall</td>
<td>Madison, New Jersey</td>
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<td>Rice Hall</td>
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<td>Wilder Hall</td>
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<td>Vanderbilt Hall</td>
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<td>Danforth Hall</td>
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<td>Park Avenue Residence Hall</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Tennis Courts</td>
<td>Madison, New Jersey</td>
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<tr>
<td>McNamara Field</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Women’s Softball</td>
<td>Madison, New Jersey</td>
</tr>
<tr>
<td>Wellness Center</td>
<td>Madison, New Jersey</td>
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<tr>
<td>Gatehouse</td>
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**Florham Campus**

Madison, New Jersey
Campus Buildings

1. Bancroft Hall (1004 River Road, Teaneck)
2. Williams Hall (1000 University Circle, Teaneck)
3. Fitness Center (1000 University Circle, Teaneck)
4. Northpointe (Residence Hall)
5. Robinson Hall (1040 University Circle, Teaneck)
6. Robinson Hall Annex (1081 Scenic Trail, Teaneck)
7. Muscarelle Center for Building Construction Studies (1004 University Circle, Teaneck)
8. Kron Administration Building (1000 River Road, Teaneck)
9. Alumni Hall (900 Library Circle, Teaneck)
10. Frank Giovatto Library (900 Library Circle, Teaneck)
11. Becton Hall (980 River Road, Teaneck)
12. Becton Theater (980 River Road, Teaneck)
13. River Road, Teaneck (continuation of Lone Pine Lane)
14. River House (889 River Road, Teaneck, continuation of Lone Pine Lane)
15. Banta Coe House (884 Lone Pine Lane)
16. University Court Residence Hall #9 (899 Lone Pine Lane, Teaneck)
17. University Court Residence Hall #10 and WFDU-FM (820 River Road, Teaneck)
18. University Court Residence Hall #11 and #12 (806, 808, 916 River Road and 901, 921 Lone Pine Lane, Teaneck)
19-23. University Court Residence Halls #1–3 (883 Lone Pine Lane and 882, 886 River Road, Teaneck)
24-26. University Court Residence Halls #1–3 (803 Lone Pine Lane and 802, 806 River Road, Teaneck)
27. Public Safety Office (870 River Road, Teaneck)
28. Interfaith Chapel (842 River Road, Teaneck)
29. 841 River Road, Teaneck
30. 840 River Road, Teaneck
31. 838 River Road, Teaneck
32. Housekeeping
33. 835 SUB Lane, Teaneck (Programs in Language, Culture and Professional Advancement)
34. 839 SUB Lane, Teaneck (SUB Annex)
35. 867 SUB Lane, Teaneck (Dean of Students)
36. Student Union Building (SUB)
37-44. Linden Residence Halls #1–8
45. Knight Spot (24/7 Study Lounge)
46. 880 Lone Pine Lane, Teaneck
47. 10 Woodridge Ave., Hackensack
48. Maintenance Shop
49. 139 Temple Ave., Hackensack
50. 131 Temple Ave., Hackensack
51. George and Phyllis Rothman Center (100 University Plaza Drive, Hackensack)
52. Dickinson Hall (140 University Plaza Drive, Hackensack)
53. Edward Williams Hall (150 Kotte Place, Hackensack)
54. Field House (1130 River Road, Teaneck)
55. 1154 River Road, Teaneck
56. Naimoli Family Baseball Complex
57. Athletic Fields
   a. Softball
   b. Soccer
   c. Tennis

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Academic Resource Center - Robinson Hall, Bldg. 5
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Alumni Relations - Dickinson Hall, Bldg. 52
Art and Media Studies - University Hall, Bldg. 9
Arts • Sciences • Professional Studies, University College - Dickinson Hall, Bldg. 52
Athletics Center - Rothman Center, 100 University Plaza Drive, Hackensack, Bldg. 51
Audiovisual (Instructional Media) - Giovatto Library & Dickinson Hall, Bldgs. 11 & 52
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