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to comply with such rules and regulations is subject to their application being rejected, offer of acceptance being rescinded, enrollment being cancelled or other appropriate disciplinary actions.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.
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- **Registration/Academic Counseling and Advising:** August 12–23
- **Classes Begin:** September 2
- **Last Day for New Registrations and Final Drop/Add Changes:** September 9
- **Midterm Progress Reporting Opens:** November 1
- **Last Day of Student Withdrawal from Classes:** November 4–19
- **MIdterm Progress Reporting Closes (Mon.)**
- **Final Examinations**
- **Classes End, 11 p.m. (Sat.)**

### Winter Session 2020
- **Classes Begin, 8 a.m. (Mon.)**
- **Classes End, 11 p.m. (Fri.)**

### Spring Semester 2020
- **Registration/Academic Counseling and Advising:** February 3
- **Martin Luther King Jr. Day Holiday (Mon.)**
- **Classes Begin, 8 a.m. (Mon.)**
- **Last Day for New Registrations and Final Drop/Add Changes:** March 21
- **Counseling and Advising (Mon.)**
- **Midterm Progress Reporting Opens:** April 3
- **Spring Session 2020 Sessions Opens (Sun.)**
- **Classes Resume, 8 a.m. (Mon.)**
- **Midterm Progress Reporting Closes (Sat.)**
- **Last Day of Student Withdrawal from Classes**: May 4
- **Reading/Snow Makeup Days:** May 5–6
- **Final Examinations**
- **Semester Ends, 11 p.m. (Wed.)**
- **University Commencement (Mon.)**

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

### Fall Semester 2020
- **Registration/Academic Counseling and Advising:** August 10–21
- **Classes Begin, 8 a.m. (Mon.)**
- **Labor Day Holiday (Mon.)**
- **Independence Day Holiday (Sat.)**
- **Midterm Progress Reporting Opens (Mon.)**
- **Fall Recess (Mon.–Tue.).**
- **Midterm Progress Reporting Closes (Tue.)**
- **Last Day for Student Withdrawal from Classes (Fri.)**
- **Priority Registration for Spring Semester 2021 (Mon.–Tue.)**
- **Classes End, 8 a.m. (Mon.)**
- **Midterm Progress Reporting (Mon.)**
- **Classes End, 11 p.m. (Sat.)**

### Winter Session 2021
- **Classes Begin, 8 a.m. (Mon.)**
- **Martin Luther King Jr. Day Holiday (Mon.)**
- **Classes End, 11 p.m. (Wed.)**

### Spring Session 2021
- **Registration/Academic Counseling and Advising:** January 4–22
- **Classes Begin, 8 a.m. (Mon.)**
- **Midterm Progress Reporting Opens (Mon.)**
- **Last Day for New Registrations and Final Drop/Add Changes (Mon.)**
- **Midterm Progress Reporting Closes (Sat.)**
- **Last Day of Student Withdrawal from Classes:** March 27
- **Spring Recess (Fri.)**
- **Online Registration for Spring Sessions 2021 (Open (Mon.).**
- **Last Day of Classes, Spring Semester (Mon.)**
- **Reading/Snow Makeup Days:** May 10–11
- **Final Examinations**
- **Semester Ends, 11 p.m. (Tue.)**
- **University Commencement (TBD)**

### 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.**

*The academic calendar is subject to change with appropriate notice.
**Grades due no later than 5 p.m. on the third day after exam is administered.*
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<td>December 9–14</td>
</tr>
<tr>
<td>Academic Term Ends, 11 p.m. (Sat.)</td>
<td>December 14</td>
</tr>
</tbody>
</table>

**Spring Trimester 2020**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate New Student Orientation/Registration (Mon.–Fri.)</td>
<td>January 13–17</td>
</tr>
<tr>
<td>Undergraduate Classes Begin, 8 a.m. (Mon.)</td>
<td>January 20</td>
</tr>
<tr>
<td>Graduate New Student Orientation/Registration (Mon.–Fri.)</td>
<td>January 20–24</td>
</tr>
<tr>
<td>Graduate Classes Begin, 8 a.m. (Mon.)</td>
<td>January 27</td>
</tr>
<tr>
<td>Last Day for New Registrations and Final Drop/Add Changes (Mon.)</td>
<td>February 3</td>
</tr>
<tr>
<td>Family Day Holiday (Mon.)</td>
<td>February 17</td>
</tr>
<tr>
<td>Family Day Holiday (Mon.)</td>
<td>February 17</td>
</tr>
<tr>
<td>Makeup Day (Thu.)</td>
<td>February 20</td>
</tr>
<tr>
<td>Midterm Grades Due (Mon.)</td>
<td>March 16</td>
</tr>
<tr>
<td>Last Day for Student Withdrawal from Classes (Mon.)</td>
<td>March 23</td>
</tr>
<tr>
<td>Registration for Summer 2020 Begins (Mon.)</td>
<td>March 30</td>
</tr>
<tr>
<td>Good Friday Holiday (Mon.)</td>
<td>April 9</td>
</tr>
<tr>
<td>Good Friday Holiday (Fri.)</td>
<td>April 10</td>
</tr>
<tr>
<td>Easter Holiday (Mon.)</td>
<td>April 13</td>
</tr>
<tr>
<td>Easter Holiday Makeup Day (Thu.)</td>
<td>April 16</td>
</tr>
<tr>
<td>Last Day of Classes, Spring (Sat.)</td>
<td>April 25</td>
</tr>
<tr>
<td>Final Examinations** (Mon.–Sat.)</td>
<td>April 27–May 2</td>
</tr>
<tr>
<td>Trimester Ends, 11 p.m. (Sat.)</td>
<td>May 2</td>
</tr>
<tr>
<td>Vancouver Campus Pre-Commencement Dinner (Tue.)</td>
<td>May 5</td>
</tr>
<tr>
<td>Vancouver Campus Commencement (Wed.)</td>
<td>May 6</td>
</tr>
<tr>
<td>University Commencement in New Jersey (Mon.)</td>
<td>May 18</td>
</tr>
</tbody>
</table>

**Summer Trimester 2020**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>New Student Orientation/Registration (Mon.–Fri.)</td>
<td>August 31–September 4</td>
</tr>
<tr>
<td>Labor Day Holiday (Mon.)</td>
<td>August 31–September 7</td>
</tr>
<tr>
<td>Undergraduate Classes Begin, 8 a.m. (Tue.)</td>
<td>September 8</td>
</tr>
<tr>
<td>Graduate New Student Orientation/Registration (Tue.–Fri.)</td>
<td>September 8–11</td>
</tr>
<tr>
<td>Graduate Classes Begin, 8 a.m. (Mon.)</td>
<td>September 14</td>
</tr>
<tr>
<td>Last Day for New Registrations and Final Drop/Add Changes (Mon.)</td>
<td>September 21</td>
</tr>
<tr>
<td>Thanksgiving Holiday (Mon.)</td>
<td>October 12</td>
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<tr>
<td>Thanksgiving Holiday</td>
<td>October 15</td>
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<tr>
<td>Makeup Day (Thu.)</td>
<td>October 15</td>
</tr>
<tr>
<td>Midterm Grades Due (Mon.)</td>
<td>November 2</td>
</tr>
<tr>
<td>Last Day for Student Withdrawal from Classes (Mon.)</td>
<td>November 9</td>
</tr>
<tr>
<td>Remembrance Day Holiday (Wed.)</td>
<td>November 11</td>
</tr>
<tr>
<td>Remembrance Day Holiday Makeup Day (Thu.)</td>
<td>November 12</td>
</tr>
<tr>
<td>Registration for Spring 2021 Begins (Mon.)</td>
<td>November 16</td>
</tr>
<tr>
<td>Final Examinations** (Mon.–Sat.)</td>
<td>December 12</td>
</tr>
<tr>
<td>Academic Term Ends, 11 p.m. (Sat.)</td>
<td>December 14–19</td>
</tr>
</tbody>
</table>

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

**Some exams run to 9:30 p.m. on each day. Grades are due no later than 5 p.m. on the third day after the exam is administered.
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. and 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, the FDU Poll. 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.
1948 — In response to the need for higher education in northern New Jersey, Fairleigh Dickinson College expands its programs into a four-year curriculum.
1954 — The first graduate-level program is offered — a master’s degree in business administration — still one of the University’s most popular programs.
1956 — By action of the New Jersey State Board of Education, Fairleigh Dickinson College becomes Fairleigh Dickinson University.
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.
approves a facilities master plan that appointed president of the University.
The board also votes that the University merge its operations on the Rutherford Campus with those of Teaneck and Indies Laboratory by Hurricane Hugo, the academic year.

Entrepreneurial education.
The nation to build a facility dedicated to Dickinson becomes the first university in Entrepreneurship at Madison, Fairleigh
Rothman Institute of Innovation and facility, opens in Hackensack.
state-of-the-art athletic and recreation Rothman Center, the University's major, service and is appointed chancellor and president emeritus. Dr. J. Osborn Fuller is appointed president.
1967 — The founding president, Dr. Peter Sammartino, retires after 25 years of service and is appointed chancellor and president emeritus. Dr. J. Osborn Fuller is appointed president.
1967 — The FDU Press is established and will print more than 1,500 scholarly books.
1970 — The 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 George and Phyllis Rothman Center, the University's major, state-of-the-art athletic and recreation facility, opens in Hackensack.
1989 — With the creation of the Rothman Institute of Innovation and Entrepreneurship at Madison, Fairleigh Dickinson becomes the first university in the nation to build a facility dedicated to entrepreneurial education.
1990 — The College of Dental Medicine graduates its last class. Dr. Francis J. Mertz is appointed to an interim term as president of the University. Because of significant damage to the West Indies Laboratory by Hurricane Hugo, the facility is closed.
1992 — 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 1993. 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.
Impact
Fairleigh Dickinson University has had a widespread impact upon northern New Jersey. Approximately 70 percent of its more than 125,000 alumni have remained in New Jersey, and many work in the area’s industries. Companies such as Alcatel-Lucent; AT&T; BD; Bestfoods; Deloitte; Erleson; Honeywell International Inc.; IBM; Johnson & Johnson; Novartis; Pfizer Inc.; Prudential; and Wyeth employ large numbers of Fairleigh Dickinson University alumni.

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

Campuses
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 on 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 conveniently next to the Convent Station, NJ Transit railroad station, the bus line and Morristown airport. It is approximately a 20-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 Hennessey Hall (Mansion) features classrooms, offices, conference-style meeting rooms and a large ballroom (Lenfell Hall). The estate’s former Orangerie 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 Chiaviello 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. Zenner, 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 Frank Santolocci Student Center with facilities for dining, recreation, student government, a student-operated pub, a bookstore and student activities.

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 undergraduates, 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.

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

Vancouver Campus
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 and graduate 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 business, business, communication, hospitality and tourism and international relations. 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:
- accountancy — New Jersey State Board of Public Accountants; business, Silberman College of Business — AACSBI 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 at the Metropolitan Campus, Teaneck, New Jersey); construction engineering technology — Engineering Technology Accreditation Commission of ABET** (ETAC/ABET); education — initial accreditation with Council for the Accreditation of Educator Preparation (CAEP) and New Jersey State Department of Education; electrical engineering — Engineering Accreditation Commission of ABET** (EAC/ABET); electrical engineering technology — Engineering Technology Accreditation Commission of ABET** (ETAC/ABET); hotel and restaurant management — Accreditation Commission for Programs in Hospitality Administration (ACPHA) (this accreditation applies only to the Bachelor of Science program); 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.

*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

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.
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

- Animation (M.A.)
- Animation (M.F.A.)
- 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.)**
- Film (M.F.A.)
- Health Science (M.H.S.)
- 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.

Faculty & Staff

Administration
G.S. Weinman, Dean
J. Lehr, Associate Dean

*While the Master of Arts in education for certified teachers (see pages 126–131) 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 132–133).

***Master of Arts in Teaching (see pages 137–140)
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.

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**Major Programs of Study**

- Master of Business Administration (M.B.A.) Specializations
  - Accounting
  - Business Administration
  - Finance
  - International Business (Metropolitan Campus only)
  - 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.

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**Faculty & Staff**

**Administration**

J.G. Almeida, Interim Dean and Associate Dean for Graduate Programs
J.D. Wischnevsky, Assistant Dean for Undergraduate Programs
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, S. Guempel, A.J. Rosman, H. Rozen, V. Sampath, J. Schiff, A. Schultzer, J. Skarbnik, Y. Yan

**Department of Economics, Finance and International Business**

K. Denning, Chair; P. Anastasopoulos, K. Betz, E. Cowan, F. Englander, J. Kiernan, R. Kjetsaa, C. Ng, S. Tuluca, X. Yang

**Department of Marketing, Information Systems and Decision Sciences**

L. Qin, Chair; A. Bazargan, G. Bronson, R. Chandrashekar, Y. Demotta, B. Ertimur, A. Fask, J. Hsu, M. Kieff, Y. Kim, K. Masten, K.G. Mun, J. Reid, M. Sedaghat, X. Tan, Z. Wang, K.P. Yoon

**Department of Management and Entrepreneurship**

G. Jones, Chair; J.G. Almeida, S. Bear, S. Behson, D. Celentano, G. Farias, T. Hansbrough, J. Harmon, I. Krysa, O. Nwachukwu, D. Scotti, G. Sollars, J.D. Wischnevsky

**Rothman Institute of Innovation and Entrepreneurship**

D.G. Caldwell, Executive Director
Anthony J. Petrocelli College of Continuing Studies

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

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, the paralegal studies program and other continuing education programs go to http://view2.fdu.edu/academics/continuing-education/.

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, and at Vancouver Campus, British Columbia, Canada. Courses are offered in formats, at times and in locations convenient for adult learners.

Programs

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

Faculty & Staff

Administration
L.R. Braverman, Dean
D. Fredericks, Associate Dean for Continuing Education
K. Zatz, Assistant Dean, School of Administrative Science
P. Dar, Executive Director of Marketing
A. Serrazza, Executive Director of Enrollment Management
F. Alonso, Director, Puerta al Futuro Program and Latino Promise and HACER Program
J. Steiner, Director, Online Programs
J.H. Behnke, Director of Web, Instructional Technology and Online Learning
M. Haines, Director of Student Support Services
J. Niser, Director, International School of Hospitality and Tourism Management
J. Lue Raia, Director of Corporate Outreach and Training
D.L. Ganley, Senior Coordinator for Off-campus Credit Programs
J. Sahni, Coordinator of Online Programs

Faculty

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 eight schools within the college:
The School of Art and Media Studies covers the disciplines of communication, fine arts and multimedia studies.

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, electrical engineering technology, 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/foreign language, teacher of students with disabilities and learning disabilities consultant.

The School of the Humanities covers the disciplines of English, history, philosophy, humanities, foreign languages, religion 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)
- Electronic Engineering (M.S.E.E.)
- Electronic Commerce (M.S.)
- Learning Disabilities (M.A.)
- Teacher of Students with Disabilities
- Management Information Systems (M.S.)
- Mathematical Foundations (M.A.)
- Medical Technology (M.S.)
- Nursing (M.S.N.)
- Nursing Practice (D.N.P.)
- Political Science (M.A.)

### 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; English as a Second Language; Bilingual Education (ESL); Secondary Education Content Area/ K–12 (Art, Biological Sciences, Chemistry, Earth Science, English, Mathematics, Physical Science, Physics, Social Studies, World Languages)

- Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.) (International students only)

- 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, Interim Associate Dean

**School of Art and Media Studies**

J. Boyd, Interim Director; Y. Aronson, B. Battistoli, K. Buzzard, 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. Raphalides, Director; D. Evans, E. Garcia, J. Kenny, K. Kattelman, B. Ojo, E. Panuccio, N. Sachs

**Peter Sammartino School of Education**


**School of the Humanities**


**School of Natural Sciences**

J. Dougherty, Co-director; M. McClary, Co-director; A. Benzercy, G. Dorata, I.R. Isquith, I. Kumar, M. Leonida, R. Lo Pinto, A. Murphy, G. Nandikotkur, N. Philips, J. Stout, A. Wallace, M.P. Warunek

**Henry P. Becton School of Nursing and Allied Health**

M. 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. Egboyun, N. Edwards-Hammond, C. Garzone-Johnson, E. Graulich, C. Jasko, M. Molloy, S. Palmer, J. Regan-Livingston, A. Sanzari, P. Ukaigwe, C. Werther
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

School of Pharmacy and Health Sciences
Florham Campus, Madison, New Jersey
(230 Park Avenue, Florham Park, New Jersey)
Michael J. Avaltroni, Dean

Programs
• Health Sciences (M.H.S.)
• Pharmacy (Pharm.D.)
• Public Health (M.P.H.)

Faculty & Staff
Administration
M.J. Avaltroni, Dean
A. Rivkin, Assistant Dean for Faculty
B. Rossi, Assistant Dean for Experiential Education
C. Sandifer, Assistant Dean for Students Affairs and Programmatic Effectiveness
B. Berić-Stojšić, Director of Master of Public Health Program

Faculty

School of Public and Global Affairs
Florham Campus, Madison, New Jersey; and Metropolitan Campus, Hackensack, New Jersey
Peter J. Woolley, Founding Director

The School of Public and Global Affairs is distinguished by project-based learning in multinational classes led by accomplished practitioners focusing on issues of both local and global importance. The school also includes the nationally recognized FDU Poll.

Programs
• Global Affairs (M.A.)
• Public Administration (M.P.A.)

Faculty & Staff
P.J. Woolley, Founding Director
P. Laubsch, M.P.A. Program Coordinator
D. Cassino, Director of Experimental Research, FDU Poll
R. Higginson, Director of Market Research, FDU Poll
K. Jenkins, Executive Director, FDU Poll
A.C. Innes, Assistant to the Director

Faculty
A. Adrignolo, H. al-Bayati, J. Buenahora, W. Roberts
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 online, 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), PRAXIS I (Core Academic Skills) and PRAXIS II (Content Area) 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 one of the following accepted tests of English proficiency: 70 score on the internet-based Test of English as a Second Language (TOEFL), 6.0 overall band score on the IELTS, 55 score on Pearson’s PTE-A, 1150 score on the GTEC or completion of level 112 of Intensive English at the ELS Language Center 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.

Degree- and Certificate-Seeking 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 re registration.

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.

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 www.fdu.edu/global and upload copies of their documents to the Supplemental Items section in the application. Official supporting documentation may be reported to:
Office of International Admissions
1000 River Road, T-KB1-01
Teaneck, NJ 07666
Phone: 1-201-692-2205
Email: global@fdu.edu

Supporting documents include one official set of transcripts and, if not in English, one official translation, reflecting the student’s academic history since secondary school, verifying the completion of the equivalent to a four-year bachelor's degree program in the United States at an accredited institution of higher education.

Additional supporting documents include letters of recommendation, graduate entrance exams such as the GRE, GMAT, etc., and other items may be required for admission to some graduate
Students may email global@fdu.edu to check the current admission requirements for specific academic programs.

International students are required to provide a qualifying score on one of the following accepted tests of English proficiency: 70 score on the internet-based Test of English as a Second Language (TOEFL), 6.0 overall band score on the IELTS, 53 score on Pearson’s PTE-A, 1150 score on the GTEC or completion of level 112 of Intensive English at the ELS Language Center. Students who have completed at least two years of study in any of the following countries are not required to submit an English test score: Anguilla, Antigua and Barbuda, Australia, Bahamas, Barbados, Belize, Bermuda, Botswana, British Virgin Islands, Canada (except Quebec), Cayman Islands, Dominica, Fiji, Gambia, Ghana, Gibraltar, Grenada, Guyana, Ireland, Jamaica, Kenya, Lesotho, Liberia, Malawi, Mauritius, Montserrat, Namibia, New Zealand, Nigeria, Papua New Guinea, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Seychelles, Sierra Leone, Singapore, Solomon Islands, South Africa, Swaziland, Tanzania, Tonga, Trinidad and Tobago, Turks and Caicos Islands, Uganda, United Kingdom, United States, Vanuatu, Zambia and Zimbabwe.

Students may apply to a participating Pre-Master's Program (PMP) at the Metropolitan Campus, which allows one semester of English course work at the University to prepare a student for matriculation into the graduate degree program. To confirm if their program of interest can accept PMP applicants, students may email global@fdu.edu. In addition to academic eligibility, one of the following scores will be required for PMP admission: 60 score on the internet-based TOEFL, 5.5 overall band score on the IELTS, 50 score on Pearson’s PTE-A, 1075 score on the GTEC or completion of level 110 of Intensive English at the ELS Language Center. Students who wish to study at the ELS Language Center may apply to the University for conditional acceptance to select graduate programs.

Applications for admission to the fall semester should be completed no later than July 1, and applications for spring no later than December 1. International students applying for an F/J visa status must provide evidence of financial support for at least the first academic year of study at the University.

Prior to enrolling at the University, international students are required to take a placement test 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.

Students who have completed at least two years of academic study in any of the following countries are exempted from placement testing: Anguilla, Antigua and Barbuda, Australia, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada (except Quebec), Cayman Islands, Gibraltar, Grenada, Guyana, Ireland, Jamaica, Montserrat, New Zealand, Trinidad and Tobago, Turks and Caicos Islands, Uganda, United Kingdom and United States.

International graduate students enrolling on an F/J visa must register for at least 9 credit hours each academic semester to maintain student visa status in compliance with U.S. federal regulations. The University requires that international students carry University insurance coverage for sickness and medical benefits. The University requires that international students submit an evaluation of their previous academic course work through an evaluation service accredited by NACES (see www.naces.org) within two months of enrolling at the University.
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.

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.

*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

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 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. Jeannie Couper, at couperj@fdue.edu, 201-692-2850.

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 a VA-administered program for individuals with at least 90 days of aggregate active duty service after September 10, 2001 and are still on active duty, or if they are an honorably discharged veteran or were discharged with a service-connected disability after 30 days. Purple Heart recipients, regardless of length of service, are qualified for Post 9/11 benefits at the 100 percent level. This benefit provides up to 36 months of educational benefits. If the students’ release from active duty was before January 1, 2013, there is a 15-year time limitation for use of benefits. For individuals whose last discharge date is on or after January 1, 2013, the time limitation has been removed.

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

This program will provide the following benefits for eligible individuals:

- Tuition and fees paid directly to the school are not to exceed $24,476.79 (2019). The cost of private university tuition and fees may be fully covered for those veterans eligible for the Yellow Ribbon Program.
- A monthly housing allowance based on the Basic Allowance for Housing for an E-5 with dependents at the location of the school, the student physically attends the majority of classes.
- A yearly books-and-supplies stipend of $1,000.00 paid proportionately based on enrollment.

If students are enrolled exclusively in online training their monthly Basic Allowance for Housing will be $894.50 (2019). If students are on active duty, they will not receive the housing allowance. If students are enrolled half time or less they will not receive the Basic Allowance for Housing.

Students who utilize Post 9/11 GI Bill, Chapter 33 at 100 percent and VA Vocational Rehabilitation, 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.

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
Financial Aid and Scholarships

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 halftime). 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 4.248 percent for loans processed on or after October 1, 2018, and before October 1, 2019 (subject to change due to federal budget cuts). Eligibility for the Direct Graduate PLUS loan is based on a credit review.

Important Information About Financial Aid

Terms and Conditions of Financial Aid Awards
Students awarded financial aid from University, 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 financial aid may be reevaluated accordingly. Financial aid offers are conditional based on receipt of any requested information by the Office of Financial Aid. Financial aid applicants may be required to submit additional documentation, which may lead to revisions in the financial aid awards offered.

Award offers are contingent upon maintaining satisfactory academic progress toward completion of the degree program. Satisfactory academic progress reviews are performed at the conclusion of each semester. Failure to maintain satisfactory academic progress will result in the loss of financial aid funding. Detailed information about satisfactory academic progress may be found online at http://view2.fdu.edu/admissions/graduate-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 Financial Aid Award Notice will be sent detailing 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 “nondedational expenses” such as parking fines, they must notify the Office of Enrollment 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 informed 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 federal- and/or state-funding levels.

Renewal of Financial Aid

A student must maintain the minimum requirements for the renewal of any scholarship funding (as was outlined previously and in the original scholarship notification letter). Students who receive need-based financial aid from any source are eligible to apply for a renewal of this aid. To be eligible for a renewed need-based financial aid package, the student must:
1. File the FAFSA application no later than April 15 (including the correct Federal School Code: 002607 for the Metropolitan Campus, Teaneck, New Jersey, and 004758 for the Florham Campus, Madison, New Jersey);
2. Respond to all requests for information/documentation by the Office of Financial 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. Department of Education.

Satisfactory Academic Progress

Detailed information about Satisfactory Academic Progress may be found at http://view2.fdu.edu/admissions/graduate-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 between the federal family contribution, the amount of aid offered by the University and the total cost of education.
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 2019–2020 or for the specific service described, unless otherwise stated. New tuition and fees charges for 2020–2021 will be announced in the spring of 2020. 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)...........$1,285.00
- Silberman College of Business,
  All Programs (per semester, per credit)...........$1,347.00
- Anthony J. Petrocelli College of Continuing Studies
  All Programs (per semester, per credit)...........$1,285.00

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)........$1,285.00

- University College: Arts • Sciences • Professional Studies
- Doctoral Programs (per semester, per credit).......$1,405.00

Per Semester Installment

- M.B.A. in Management for Executives*...........$40,570.00
- M.B.A. in Health Sector Management specialization*...........$40,570.00

Per Academic Year

- Ph.D. in Clinical Psychology...$41,698.00
- Dissertation**..................$5,006.00
- Internship Charge**..........$260.00
- Dissertation Maintenance.....$510.00
- Summer Internship
  Charge**..........................$260.00
  Dissertation Maintenance.....$510.00
- Psy.D. in School Psychology (3-year Program).......$41,698.00
- Dissertation per credit........$1,405.00
- Summer Internship
  Charge**..........................$260.00
- Dissertation Maintenance.....$510.00
- Doctorate of Pharmacy Practice
  per credit........................$1,405.00
- Program Fee .................$232.00

- Doctor of Pharmacy
  Program..........................$39,550.00
- Doctor of Pharmacy Dual Degree
  Program (M.S./M.H.S./M.A.
  Track)..........................$41,912.00

Doctor of Pharmacy Dual Degree
- Program (M.B.A./M.P.A.
  Track)..........................$44,272.00
- E-learning Fee
  (per year)......................$1,324.00
- Student Services Fee
  (per year)......................$542.00

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...........$139.00
  Proficiency Exam......................$265.00
- Application Fee........................$50.00
- Graduation Fee
  Master's Degree.....................$245.00
  Doctoral Degree.....................$495.00
- Technology Fee
  Full-time...........................$924.00
  Part-time............................$450.00
- Health and Major Medical (Mandatory)**
  International Students (Full-
  time and part-time)
  Full year..........................$1,581.00
  Spring semester only...............$980.00
  Domestic (Full-time only)
  Full year..........................$1,581.00
  Spring semester only...............$980.00

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

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

*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.

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

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.

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 2.85 percent convenience fee to the credit card user based on the amount of the payment for MasterCard, Visa, American Express and Discover. The convenience fee is for the use of the service and retained in full by the vendor not the University. Students may also pay by ACH (electronic check) with no fee assessed.

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.

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 between 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 student 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.

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.

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 Ten-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.

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

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.

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

Winter Session
Week 1–Week 3 of Session
Students who pay their 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.

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

**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 2005. 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 Twomblies are coed by floors.

**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 27.
**Student Life**

**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 Housing and Residence Life**
The Office of Housing and 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.

Housing and 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. 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 coed 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.

For more information about the programs and services offered by Housing and Residence Life visit [www.fdu.edu/reslifemetro](http://www.fdu.edu/reslifemetro).

**Campus Ministry**
The objective of campus ministry 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.

**Student Counseling and Psychological Services**

Student Counseling and Psychological Services (S-CAPS) complements the academic experience of the student body by facilitating healthy personal, social and intellectual development by offering psychological and mental health counseling for students seeking to work through personal problems. Life circumstances, skills deficits and/or mental health issues may at times interfere with a student’s ability to successfully achieve important academic and life goals. S-CAPS aims to help students gain greater understanding of themselves and their values, identify problems and attitudes which contribute to them, explore alternative courses of action and develop skills to cope with their problem(s), increasing their academic, social and vocational successes.

All services provided by S-CAPS are **private and confidential**, and are provided **free of charge** to all interested Fairleigh Dickinson University students.

The college years can be exciting, challenging and scary all at the same time. Sometimes life can feel a little overwhelming and tough to face on one's own. Social, academic or personal conflict can create feelings of distress, as well as strain one’s sense of emotional well-being. When students experience disturbing thoughts, emotions or events, it is often helpful to speak with a nonjudgmental expert in human relations.

Fairleigh Dickinson University students often see a counselor because they are experiencing a tough time due to social, academic, or personal struggles. S-CAPS licensed mental health counselors provide emotional treatment and/or support to help students problem solve personal issues, increase their academic retention and focus and lead happier and more productive lives.

Some reasons for counseling:

- Stress
- Anxiety and Fear
- Depression
- Relationship Issues
- Confusion
- Concern for a Friend or Loved One
• Difficulty Balancing College, Work and Family
• Multicultural Demands
• Anger
• Grief and Loss
• Adjustment Problems
• Feeling Sad or Lonely
• Trouble Concentrating, Studying or Taking Tests
• Concerns About Alcohol or Other Drugs
• Family Problems

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 résumé 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, entrée varieties, vegetable choices, beverages and desserts on an “all-you-can-eat” basis. Premium entrées as well as festive holiday meals are presented several times a year. Each campus has a main dining hall and other convenient snack bar locations.

Dining hall 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.

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 whether the student is a commuter and/or dormitory resident. Personalized requirements and details are available at http://view2.fdu.edu/metropolitan-campus/student-health-services/ and at http://view2.fdu.edu/florham-campus/student-health-services/.

The University requires each full-time student 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/or surgeries, the neighboring community hospitals are utilized. 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 psychodiagnosics. 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.

*Hours subject to change at discretion of University.
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.

**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 19 programs in total including eight men’s teams: baseball, basketball, cross country, golf, soccer, tennis and indoor/outdoor track and field and 11 women’s teams: basketball, bowling, cross country, fencing, golf, soccer, softball, tennis and indoor/outdoor track and field and volleyball. Athletic scholarship assistance is offered in all sports to deserving student-athletes, while prospective student-athletes are encouraged to contact the athletic department for further information.

The Burgundy and Blue compete as a member of the Northeast Conference (NEC) and have won a total of six NEC Commissioner’s Cups, which are emblematic of the overall achievements of the athletic program. Across the board, the Knights have enjoyed tremendous success highlighted by a pair of NCAA National Bowling Championships (2006, 2010); three National Fencing Championships (1960, 1963, 1969); six NCAA Men’s Basketball Tournament appearances; 18 NCAA Men’s Soccer Tournament appearances; and eight Northeast Conference Women’s Golf Championships. Across the board, the Knights have collected 66 NEC Team Championships. Most recently, the 2018–19 FDU men’s basketball team made school history by winning the program’s first-ever NCAA Tournament game and advancing in the tournament. The historic season included the team’s second NEC Championship in the past four seasons and first NEC Regular Season Championship in 13 years. Individually, the Knights have featured five NCAA Track and Field Champions between the men’s and women’s programs, four National Intercollegiate Women’s Fencing Association (NIWFA) Champions, seven NEC Men’s Golf Champions and five NEC Women’s Golf Champions.

On both the Teaneck and Hackensack sides of campus, you will find state-of-the-art athletic facilities which host events throughout the year. In Hackensack, the flagship facility is the George and Phyllis Rothman Center which rests on the banks of the Hackensack River. The facility is home to the FDU basketball, volleyball, fencing and track and field teams as well as the weight room and the athletic department’s administration. Throughout the year, the facility hosts major community events including graduation ceremonies and the Bergen County High School Basketball Jamboree. Also located on the Hackensack side of the river is the FDU Softball Field. Crossing the pedestrian bridge to the Teaneck side of campus, you will find the Naimoli Family Baseball Complex, which is home to the Knights baseball team. The complex, which is one of the top baseball facilities in all of New Jersey, was built in 2011 and named after Vince Naimoli an FDU alumnus and original owner of the Major League Baseball franchise Tampa Bay Rays. Across the street from the baseball complex lies University Stadium and the FDU Tennis Courts. The FieldTurf University Stadium is home to the FDU men’s and women’s soccer programs and features seating for more than 1,200 fans. For more information regarding FDU Knights athletics, visit FDUKnights.com.

**Florham Campus**

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

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, softball, touch football, bowling, golf, cross country and swimming. Several recreation and fitness programs, such as aerobics, karate, yoga 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 FERPA. Subject to specified exceptions set forth by FERPA, the University is required to have a student’s written consent before disclosing personally identifiable information from a student’s educational records to third parties. An educational record is information directly related to a student, which is maintained by the University or any individual on behalf of the University, in any recorded form. Grades, evaluations, financial records, class-attendance records and financial-aid records are common examples of educational records.

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

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

FERPA allows the University to disclose students’ Directory Information without consent. University students will be provided an opportunity at the start of each academic year to request that the University not disclose their Directory Information.

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.

Policy on Prohibited Discrimination, Harassment and Related Misconduct

The University is committed to maintaining a fair and respectful environment for living, working and studying. To that end, and in accordance with federal and state law, this University applies to the conduct of, and protection of, University faculty, staff, administrators, supervisors, employees, students, volunteers, guests, patrons, independent contractors or clients and visitors of the University and prohibits any of the foregoing from harassing and/or discriminating against any other member of the University community because of that person’s sex, race, creed, color, religion, handicap/disability, gender, gender expression, gender identity, genetic information, age, marital status, sexual orientation, veteran status, pregnancy status, ancestry or national origin. Incidents of harassment and discrimination will be met with appropriate disciplinary action, up to and including dismissal from the University.
Nondiscrimination and Equal Opportunity
The University is committed to maintaining a discrimination-free academic environment for its students and employees. No one will be denied employment or admission to the University on the basis of sex, race, creed, color, religion, handicap/disability, gender, gender expression, gender identity, genetic information, age, marital status, sexual orientation, veteran status, pregnancy status, ancestry or national origin. The University does not discriminate on the basis of any of the aforementioned protected classes in the recruitment and admission of students, the recruitment and employment of faculty and staff and the operation of any of its programs and activities as specified by the federal or state law and regulations. Every member of the University community is expected to uphold this policy as a matter of mutual respect and fundamental fairness in human relations. Every student of this institution has a responsibility to conduct himself/herself in accordance with this policy as a condition of enrollment. Further, every University employee has a responsibility to conduct himself/herself in accordance with this policy as a condition of employment.

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

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

Clery Act
The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act is a federal law that requires colleges and universities to disclose information about campus crime and security policies. Fairleigh Dickinson University Metropolitan Campus director of the department of public safety is responsible to prepare and distribute the annual reports for the four campuses. The reports are also available on the Fairleigh Dickinson University website at https://view2.fdu.edu/about-fdu/facts-about-fdu/clery-act-statistics/.

For a paper copy of the report, contact Metropolitan Campus Public Safety Director David Miles at 201-692-2227 or dmiles@fdu.edu.
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.

Metro Writing Studio
The Metro Writing Studio supports the University’s mission to graduate students who are competent and confident writers by providing writing support of every kind free of charge for all students, faculty and staff of Fairleigh Dickinson University. Located on the second floor of the Giovatto Library, the studio is staffed with professionally credentialed tutors. Individual, one-on-one tutoring is available primarily on a drop-in basis; limited appointments are also available.

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

To learn more about all of the services the Metro Writing Studio provides, please call 201-692-2166 or visit http://uccoll.fdu.edu/metro.

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 Geh 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 showcase the intellectual and historical heritage of the University. The collection includes monographs by the founder and first president Peter Sammartino as well as 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 work 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 Orange, 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
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147,000 book volumes, some 120 current newspapers and periodicals plus more than 1,500 backfiles. It also holds more than 2,700 DVDs and videos for classroom and individual use.

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

The noncirculating print collections in the Monninger Center include the Douglas Lloyd Kahn Collection on the History of Photography and Film with some 4,300 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 through the online catalog. Interlibrary loan requests can be delivered to the appropriate campus within two to three days. A user needing 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 190 subscription databases containing more than 138,000 full-text journals, more than 160,000 e-books and three streaming video collections. Most resources within the FDU Online Library are available 24/7, both on campus and remotely.

The FDU library digital collection is available at www.fdu.edu/digitallibrary. 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 historical photographs and documents, student newspapers, digital artifacts and maps. This collection is continually growing as the University works to preserve its heritage.

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

Computer Facilities

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

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

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

Each computer lab is equipped with Lenovo ThinkCentre All-in-One desktop computers replete with Intel™ 17 processors, LCD flat-panel display and combination CD-RW/DVD-RW drives for file storage and access to optical-based materials. All of the computers are connected to the University-wide network for file and print sharing and access to the internet. All lab computers are running the Microsoft Windows 10 operating system with a large suite of general-purpose software, such as Microsoft Office Professional, and discipline-specific software to support academic computing. Computer labs that are also used as classrooms are equipped with a high-resolution/high-intensity computer-projection systems and/or high-definition, flat-panel display technology.

To keep pace with changes in technology and increasing demands for memory and processing power, campus computing center computers are acquired on a lease technology refresh program. FDU has a laptop loaner program that enables students to “borrow” a laptop computer for use within the campus libraries. The loaner laptops are imaged with many software applications and can access the internet via the University wireless network. Additionally, the University’s automated library system provides anyone the ability to search the holdings of both campuses from any location using the internet and NetID credentials for authentication.

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

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

**UTAC**

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

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

**Acceptable Use Policies for Computer Usage**

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

The Fairleigh Dickinson University Acceptable Use Policy for Computer Usage and the Resident Network Acceptable Use Policy may be obtained from the University information systems website at the following URL: [http://isweb.fdu.edu/policies/oirt_policy.html](http://isweb.fdu.edu/policies/oirt_policy.html).

**Research**

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

Research and educational development activity is found in all academic disciplines. Research is integral to graduate programs in chemistry, communication, clinical mental health counseling and psychology 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 researchers in areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and computational and experimental physical chemistry. Current research within the department includes computational modeling of collagen mutations to determine their role in biological systems, development of surface bound anti-infective coatings for use in the biomedical industry, quantum mechanics and molecular orbital theory applied to metalloporphyrins, correlation 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 limited to experimental design, analytical techniques, 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 during a research seminar to complete the degree requirements. In Becton College’s psychology, industrial/organizational 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 collaboration is frequent and often results in scholarly presentations at professional meetings 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-development patterns, personal and organizational factors affecting work performance, personality traits and the effects of stress. Students in the industrial/organizational psychology program also have the option of completing a master’s thesis.

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

Communication studies faculty have published work in professional and scholarly journals and written books on communication theory, organizational and crisis communication, advertising, communication pedagogy, semiotics, network analysis and language and social interaction. Mentored research is regularly offered at the undergraduate and graduate levels.

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

University College: Arts • Sciences • Professional Studies prides itself on its 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, cognitive, psychological and psycho-educational testing and women's issues to name a few. Faculty in the English and comparative literature 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 Doctor of Nursing Practice (D.N.P.) programs. D.N.P. students are engaged in evidence-based research for their dissertation projects. 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 Education, also part of University College, is funded by local and state agencies and the Office of Education for a variety of innovative programs. Research is conducted in the areas of learning disabilities, ESL, bilingual education, dyslexia, social justice and equity, culturally responsive teaching, educational philosophy and history and more.

The Lee Gildart and Oswald Haase School of Computer Sciences and Engineering focuses on research on electronic commerce, electronic business, organizational memory, organizational memory information systems, knowledge management, 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 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.

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

The FDU Poll receives an “A” rating from statistician Nate Silver's FiveThirtyEight blog. The ratings measure both accuracy and bias for all major polling services in the United States, providing an update to similar research the poll watchers conducted in 2014. FDU’s “A” rating puts it in the top 15 of the more than 380 polling institutes reviewed and graded from A+ through F. The FDU Poll was found to have a 94 percent accuracy rate for predicting election results, and is one of only three A-rated polling institutes with zero bias to their rankings.
Students With Disabilities
Fairleigh Dickinson University has 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 director of Academic Resource Center and disability services at 201-692-2078.

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.

FDU Poll
Founded as an independent survey research center in 2001, the FDU Poll (also known as PublicMind™) has produced hundreds of original studies and press releases on voter attitudes, public policy, elections and market trends. It is a nationally cited source of public opinion research or campaigns and elections as well as a variety of national issues such as automobile safety, eminent domain, gambling, the impact of a candidate’s gender or voter perceptions and even the impact on New Jersey by the TV shows “The Sopranos” and “Jersey Shore.” The poll is annually rated in the top 10 percent of polls nationally based on accuracy and lack of bias.
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 absence 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 other original (not common-knowledge) material without acknowledging its source.” (“Defining and Avoiding Plagiarism: The WPA Statement on Best Practices” <http://www.wpacouncil.org/positions/WPAplagiarism.pdf>)

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

Fairleigh Dickinson 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 and to the campus Office of Enrollment Services and Office of the Dean of Students. The student may appeal the course instructor's decision as outlined below. Upon completion of the appeals process, the school director or department chair shall notify the student of the final disposition of the matter and the sanctions to be imposed, if any, via certified mail with copies to the course instructor, college dean, campus director of enrollment services and dean of students.

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

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. In the Silberman College of Business a student may register for 12 credits (considered an overload) and needs the dean’s approval.

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 and communication program (Maxwell Becton College of Arts and Sciences) and the Peter Sannmartino School of Education, Master of Public Administration (School of Public and Global Affairs), the Henry P. Becton School of Nursing and Allied Health’s Doctor of Nursing Practice (DNP) and Master of Science in Nursing (M.S.N.) programs, which require 3.00; a grade point ratio of at least 3.25 is required for the M.A. and M.A.T. in Teachers of Students with Disabilities, 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.

*Check degree requirements for individual majors.

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**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 for graduate study unless students register the semester following a leave of absence, or request and are granted an extension of the leave of absence.

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**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.

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**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:

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<td>A</td>
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<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B–</td>
<td>2.67</td>
</tr>
</tbody>
</table>

The definition of other letter grades is as follows:

- **P** Pass
- **NC** No Credit
- **W** Withdrawal
- **I** Incomplete

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. They will be computed into the cumulative grade point ratio.

**Grade Reports**

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

**Transcripts of Records**

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

*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.
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.

Probation and Academic Disqualification, Graduate Policy
Students must maintain a minimum grade point ratio (GPR) of 3.00 to complete a graduate program. If the cumulative GPR falls below 3.00, the student is placed on probation. Students who receive two or more C grades will be put on probation. An adviser will meet with the student to set up a course of remediation, the student's records will be reviewed each semester, and the student may be limited to the number of credits taken while on probation. A student who has not shown evidence of academic improvement and has not met academic qualifications to graduate will be counseled out of the program. (The exceptions to this policy are the Henry P. Becton School of Nursing and Allied Health, the School of Pharmacy and Health Sciences, the School of Psychology, Peter Sammartino School of Education Clinical Placement, Maxwell Becton College of Arts and Sciences M.A. and M.F.A. in animation all listed below).

School of Pharmacy and Health Sciences
Good academic standing is defined as achieving cumulative grade point ratio (GPR) of 2.75 or above at the end of any semester and/or remediation period. The Student Affairs and Academic Progression Committee reviews the progress of all students in the pharmacy program.
1. A student will be placed on academic probation when one or more of the following occurs:
   • The student has failed course(s) or remediation for a course.
   • The student’s cumulative GPR falls below 2.75.
2. During the time a student is on academic probation, the student must meet with the assistant dean for student affairs and/or other deans or their designee(s) to discuss their course of action for returning to good academic standing.
3. Any student who is placed on academic probation or required to meet with the Student Affairs and Academic Progression Committee, must meet with the School of Pharmacy and Health Sciences financial aid counselor to discuss any possible financial-aid consequences.
4. A student may be removed from academic probation when the specific cause for being placed on academic probation has been removed, that is:
   • The student passes the course that was previously failed; or
   • The student’s GPR is at or above 2.75; or
   • For either cause, the student complies with any additional requirements from the assistant dean for student affairs and/or other deans or their designee(s).
5. A student may be suspended or terminated from the Doctor of Pharmacy program if the student is not in good academic standing at the end of any semester. Action of suspension or termination will be determined following evaluation of in-class performance and a determination by the Student Affairs and Academic Progression Committee. If a student is not seen to be progressing through the program toward successful completion, he/she may be suspended or terminated from the program following a formal hearing with this committee.

Peter Sammartino School of Education Clinical Placement
Clinical Probation and Removal
If a candidate is asked not to continue placement in a school by the school/district due to incapacity to fulfill teaching or internship responsibilities; ineffectiveness or conduct unbecoming of a teacher or intern; or other just causes, it is the policy of the Peter Sammartino School of Education (SOE) that:
• The SOE program director/coordination, the adviser of the candidate and all other appropriate parties will be notified via email concerning this matter.
• The SOE program director/coordination, director of field placement, adviser of the candidate and all other appropriate parties will meet with the candidate.
• The matter will then be considered by a committee consisting of the director/coordination of the program, the adviser of the candidate, the director of field placement and at least one member of the administration of the SOE.
• Based on the review of all relevant information, a recommendation will be made to the director of the SOE as to whether or not the candidate should be allowed to continue the clinical experience and if a new placement will be made. The Office of Field Placement will determine when and where the placement will be made.
• If a candidate is asked not to continue in a second placement by the school/district due to incapacity to fulfill teaching responsibilities; ineffectiveness or conduct unbecoming of a teacher; or other just causes, it is the policy of the SOE that:
   • The candidate will NOT be allowed to continue in the clinical experience or take other clinical experiences.
• The SOE program director/coordination and the adviser of the candidate will be notified by email.
• The SOE program director/coordination, director of field placement, adviser of the candidate and all other appropriate parties will meet with the candidate. The candidate may request to have a representative present.
• The matter will be considered by a committee consisting of the director/coordi- nator of the program, the adviser of the candidate, the director of field placement and at least one member of the administration of the SOE.
• Based on the review of all relevant information, a recommendation will be made to the director of the SOE as to whether or not the candidate should be allowed to continue in the program.

**Gildart Haase School of Computer Sciences and Engineering**

Students must maintain a minimum grade point ratio (GPR) of 2.75 to complete a Master of Science degree. Any semester a student’s semester or cumulative grade point ratio (CGPR) falls below 2.75, he/she is placed on probation. A student who has not met academic qualifications will be dismissed from the program.

**Henry P. Becton School of Nursing and Allied Health**

Students must achieve a grade of B or higher in each nursing course. A cumulative GPR of 3.00 is required for continuation in the program and graduation from the University. Students who fail a second course may not repeat it. After failing a second course the student is dismissed.

**Clinical Probation and Removal**

A student may be placed on clinical probation at the end of a clinical rotation if the student demonstrates either of the following:

• He/she cannot carry out expected clinical activities without direct supervision.
• Fails to demonstrate professional growth and development, or appropriate initiative, decision-making, or leadership.

After meeting with the course-responsible faculty or course instructor to discuss the student’s performance and the probationary process, the student will sign a contract agreeing to a plan to remove the probation. If the student meets his/her outcomes, probation will be lifted.

**Clinical Dismissal**

Grounds for clinical dismissal are:

1. Failure to meet clinical educational outcomes.
2. Behavior that requires direct instructor intervention to prevent omissions or incomplete or unsafe care that would result in actual or potential physical or emotional harm to the client.
3. Behavior that actually or potentially harms the client physically or emotionally.

Any of these behaviors result in an NC (No Credit) grade for clinical and an F in the professional course. The student is not allowed to continue in the clinical experience for that course. If this is the student’s first failure in a professional course, she/he may repeat the course the next time it is offered in their cohort.

**Programs in School of Psychology (M.A., Psy.D., Ph.D.)**

**M.A. in General/Theoretical Psychology**

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.

**Ph.D. in Clinical Psychology**

The following are the conditions under which students may be terminated from the program:

1. If a student receives two or more grades of C+ or lower or one grade of F, or maintaining a grade point ratio of less than 3.20 for two consecutive years.
2. If a student fails the Ethics Qualifying Exam a second time.
3. If a student fails the Comprehensive Examination a third time.
4. If a student has not finished the degree within the specified time limit.
5. If a student has engaged in unethical or criminal behavior (plagiarism, cheating, violation of APA ethical guidelines or University or governmental law, including harassment). The criminal background check (described below) will be one source of information in this regard. Termination will be decided by the doctoral faculty as a whole.
6. If a student has psychological problems or deficiencies in professional competencies that affect the student’s functioning in the program or ability to function effectively in a clinical or research capacity. Students should be aware that they are evaluated throughout their training with regard to their interpersonal, professional and ethical behavior, as well as their clinical and research competencies. Students’ progress in the program is evaluated regularly, and any student who is exhibiting competency deficiencies or psychological problems that interfere with progress in the program will be advised on appropriate procedures for responding to faculty concerns, including, but not limited to, leave of absence, personal therapy or repeating a clinical or research practicum.
experience. In the event of extreme concerns deemed unlikely to respond to remediation or sustained concerns with inadequate response to remediation will result in termination from the program.

7. If a student has been asked to leave an externship or internship, that is grounds for termination from the program.

**M.A. and Psy.D. in School Psychology**

The following are the conditions under which students may be terminated from the School Psychology programs:

1. Receiving two or more grades of C+ or lower or one grade of F, or maintaining a cumulative grade point ratio (GPR) of less than 3.20 for two consecutive years.

2. Failing any part of the Comprehensive Examination on the third attempt.

3. Unethical or criminal behavior (e.g., plagiarism; cheating; violation of American Psychological Association (APA) or National Association of School Psychologists (NASP) ethical guidelines, University policy or governmental law; harassment; or endangering the welfare of a child).

4. Psychological or personal problems that affect the student’s functioning in the program or ability to function effectively in a clinical capacity.

5. Not finishing the degree within the time limit.

6. Not remaining continuously enrolled.

**M.A. in Forensic Psychology**

The following are the guidelines by which students may be terminated from the master’s program in forensic psychology:

1. Receiving two grades of C+ or below or one grade of F.

2. Failing the Comprehensive Examination a second time. Students must petition the program faculty for a third administration of the Comprehensive Exam.

3. Not finishing degree requirements in three years.

4. Unethical or criminal behavior (plagiarism, cheating; violation of APA ethical guidelines or University or governmental law, including harassment) that occurs either on campus, on internship site or in another academic or, in the case of criminal behavior, non-academic capacity. Termination will be decided by the program faculty and the department chair as a whole. The student will have the opportunity to present his/her side of the issue, as well as corroborating evidence. Legal advisers will not be involved in the hearing process.

5. Psychological problems that affect the student’s functioning in the program or ability to function effectively in a clinical capacity. The program director and department chair will hold a meeting with the student to determine if such problems are evident. After consulting with the program faculty, a decision will be made on how to proceed. If deemed appropriate, the student will be asked to take a leave of absence to address these problems through psychotherapy. In the event of long-term, serious problems or a situation not adequately remediated by a leave of absence, a student may be asked to leave the program.

6. Unsuccessful completion (due to student’s performance) of the internship a second time. (Students must petition the program faculty for a second internship placement and demonstrate that issues raised during the first placement have been addressed).

**M.S. in Clinical Psychopharmacology**

Termination from the program will occur for the following reasons:

- Surrender of a license in any jurisdiction for disciplinary reasons.
- Documented academic dishonesty, as described in the University Academic Integrity Policy.
- Unethical or unprofessional behavior. Please note that this also includes course website postings and email communications with faculty and staff. Students are advised that their behavior while participating in the program should exemplify the ethical behavior of a professional psychologist with respect to all communications with clients, colleagues, fellow students, faculty and staff.
- Final grade of C+ or less in two or more courses.
- Failure of the qualifying examination on three occasions.

Termination will be at the discretion of the academic director working in consultation with appropriate personnel within the University.
## Graduate Programs

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### 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).

*Also offered at Vancouver Campus.

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**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.)

### 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**
- **O-C**

### Electronic Commerce (M.S.)

- **FLOR**
- **METR**
- **O-C**

### Global Affairs (M.A.)

- **FLOR**
- **METR**
- **O-C**

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

- **FLOR**
- **METR**
- **O-C**

### Hospitality Management Studies (M.S.)*

- **FLOR**
- **METR**
- **O-C**

### Management Information Systems (M.S.)

- **FLOR**
- **METR**
- **O-C**

### Medical Technology (M.S.)

- **FLOR**
- **METR**
- **O-C**

### Nursing (M.S.N.)

- **FLOR**
- **METR**
- **O-C**

### Nursing Practice (D.N.P.)

- **FLOR**
- **METR**
- **O-C**

### Pharmacy (Pharm.D.)

- **FLOR**
- **METR**
- **O-C**

### Political Science (M.A.)

- **FLOR**
- **METR**
- **O-C**

### 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**
- **O-C**

### Public Health (M.P.H.)

- **FLOR**
- **METR**
- **O-C**

### Service Innovation and Leadership (M.S.)

- **FLOR**
- **METR**
- **O-C**

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

- **FLOR**
- **METR**
- **O-C**

### Student Services Administration (M.A.)

- **FLOR**
- **METR**
- **O-C**

*Also offered at Vancouver Campus.
Accounting
(M.B.A.)
See Business, Accounting (M.B.A.), page 68.

Accounting
(M.S.)
See Business, Accounting (M.S.), page 74.

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 30 convenient off-campus locations throughout New Jersey.
• Many courses are available online through an asynchronous delivery.
• A 50-percent tuition for all applicants.

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 44 to 54. 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.

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. 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 MADS6773 Current Issues in Forensic Sciences.

Correctional Administration and Leadership
This 18-credit graduate certificate program focuses on the administration
Administrative Science

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.

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, MADS6635 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.

Global Emergency Medical Services Administration
This 18-credit 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 healthcare 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 Communications, MADS6678 Special Topics: Lifestyle Modification for Community Leaders, MADS6747 Relational Leadership, MADS6753 Special Topics: Elder Care: Legal Issues and MADS6763 Grants and Sponsored Projects Operations.

Global Leadership and Administration
This 18-credit graduate certificate is especially designed for leaders and administrators of worldwide organizations. Participants can choose six courses from the following list: MADS6600 Theory and Practice of Administration, MADS6606 Administrative Leadership in Complex Organizations, MADS6609 Productivity and Human Performance, MADS6610 Organizational Decision Making, MADS6615 Global Leadership, 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, MADS6673 Optimum Leadership, MADS6706 Collaborative Leadership, MADS6709 Special Topics: Creativity, Change and the 21st-century Leaders, MADS6731 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.

Homeland Security Administration
This 18-credit, six-course certificate is designed to provide an introduction to the area of homeland security. Courses include MADS6617 Emergency Management and Safety Administration, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6648 Disaster Recovery and Organizational Continuity, MADS6697 Current Issues in Cyber Forensics, MADS6698 Current Issues on Terrorism and 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:
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.

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 MADS66747 Relational Leadership. Students can choose the remaining courses from the following electives: MADS6640 Leading in Times of Crisis, MADS6658 Optimum Leadership, MADS6674 Perspectives on Leadership from Films, MADS6675 Special Topics: Leading Out of the Mainstream and MADS66751 Executive Communication as a Leadership Tool.

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: MADS6656 Administrative Leadership in Complex Organizations, MADS6658 Organizational Communication and Conflict Resolution, MADS6663 Marketing of Public, Private and Not-for-Profit Organizations, MADS6664 Optimum Leadership, MADS6665 Grant Writing and Administration, MADS6668 Leadership Plus, MADS6669 Marketing Social Change, MADS6670 Managing Organizational Change, MADS6672 Customer Service for Public and Not-for-Profit Organizations, MADS6673 Optimum Leadership, MADS6677 Relational Leadership, MADS6678 Grants and Sponsored Projects Operations and MADS6679 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, MADS6634 Community Threat Assessment and Risk Analysis, MADS6636 Global Preparedness for Catastrophic Emergencies, MADS6655 Contemporary Issues in Community Policing, MADS6691 Preventing Future Columines, 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.

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.
4. 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 39-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: 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
Introduction to issues of administration of public, private and not-for-profit organizations. Cases are used to analyze the relation of theory to practice and to illustrate the direct practical relevance of theoretical models to administrative action. This course is waived for graduates of the New Jersey Certified Public Manager® (CPM) program.

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 ethics 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 cognitive 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.

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

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.

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 theorists 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.

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 principles practiced by 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 multicultural 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 include 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 officers, 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 seizes 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.

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
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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 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, Hefetz, Zenger, Folkman, Kanter, Gardner, Pouzes, Vaill, Greenleaf, Kellerman, Lipmann-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. This course contributes 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
situated 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 led 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 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.
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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.

MADS6709 3 Credits
Special Topics: Creativity, Change and 21st-century Leaders*
Leaders of the 21st century can no longer deal just with change; they must be able to create, discover and invent new ways of thinking, new ways of dealing with greater changes yet to come and new ways of building organizations. This course focuses on recognized leadership characteristics and skills that stimulate change: vision, communication, synergistic decision-making, motivation and talent development. Students will engage in highly interactive stimulations and other exercises that require the willingness and an ability to challenge convention, shift paradigms, communicate effectively and challenge the status quo in order to develop unusual solutions to usual problems.

MADS6710 3 Credits
Special Topics: Dissonant Issues Seminar*
This course will explore a myriad of divisive and conflicting issues in contemporary society including: school reform, gangs, obscenity, religious extremism, global warming, identity theft, human trafficking, poverty, unemployment/underemployment, disease, immigration, drug smuggling, war, capital punishment and political corruption. Guest speakers will share their experiences and expert

*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.
knowledge on these critical and sensitive issues supplemented by films and documentaries.

MADS6714
3 Credits
Special Topics: First-responder Stress Awareness and Management

This course is designed to lead students to a new lifestyle to meet the demands of life and work. Focus on achieving a healthier, more fulfilling life by recognizing and managing stress. The course will help participants identify common sources of stress and strategies for managing them effectively. This course will help participants develop skills to avoid burnout and maintain a healthy work-life balance.

MADS6715
3 Credits
Special Topics: Global Terrorism and Emergency Management Preparation

Terrorism and its impact on governmental, social, legal, and financial organizations is the basis of this course. Various measures to stem the growth of terrorism and to prevent it through intelligence, legislation, and international collaboratives will be fully explored.

MADS6717
3 Credits
Special Topics: Leading Out of the Mainstream

This course includes an extensive analysis of paradigms and how they affect behavior and decision making by examining both sides of major issues on public and private policy, politics, global economy, environment, media, health, law, public safety and ethics. Numerous guest speakers will present different views on current topics and events.

MADS6718
3 Credits
Special Topics: Lifestyle Modification for Community Leaders

Leaders and managers face many workplace and life challenges that can lead to imbalance and conflict resulting in wrong decisions that affect the lives of many people. Everyone is living a stressful life leading to a depletion of energy, fatigue, and even depression. This course will focus on achieving a healthier, more fulfilling lifestyle to meet the demands of life and work. This course is designed to lead students to a new level of awareness and empower them to make the life changes needed for full engagement as leaders.

MADS6720
3 Credits
Special Topics: Metropolitan America: Influence of the Past and Future

The American metropolis at the end of the century is very different from what people anticipated about 50 years ago. At mid-century, they envisioned a clean, rationally planned environment of the future, free of long-standing problems such as traffic and poverty. The reality is so much more complex. Leaders built a metropolis that addressed some major problems, while at the same time creating new ones. The next 50 years surely will contain similar surprises. This class will take an in-depth view of these key influences shaping the past and future of the American metropolis.

MADS6730
3 Credits
Malware Investigations

Short for malicious software, malware is defined as a program or file that is designed to specifically damage or disrupt a system, such as a virus, worm, or a Trojan horse. This course will cover various malicious software applications used by today's cyber criminals. Reverse engineering techniques will be practiced. Understanding malware signatures and heuristics will be discussed and fully explained. Encryption and cryptography practices and procedures will be touched upon as additional means of destructive and illicit behavior.

MADS6731
3 Credits
Executive Communication as a Leadership Tool

This broad-based and highly interactive course will help students develop a strong foundation in communication theory and practice, with an emphasis on communication skills development in the five key areas: written, oral, presentation, cross-cultural and listening skills. Further, students will examine great leaders — from inside and outside the business world — and how their communication skills, styles and approaches contributed to their leadership impact.

MADS6732
3 Credits
International Conflict Resolution

Sources and analysis of international conflicts, barriers to effective communication and diplomatic approaches to leading political solutions. Principles of international law and multilateral organizations. Study of different techniques used during important 20th- and 21st-century cases.

MADS6733
3 Credits
World Economy and Globalization

This course reviews the past and current world economy and globalization. Topics include: relations between the industrialized nations and some specific countries in Asia, Africa and Latin America; current communist markets, transnational corporations, World Bank and International Monetary Fund; and the future of developing countries' products in the international market.

MADS6734
3 Credits
World Economy and Globalization

This course will offer the basics of computer security countermeasures for the professional or personal user who encounters various types of malware such as spyware, phishing sites, spam, bots, root kits, viruses, key loggers, cookies and hijackers. 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 will demonstrate to students how one can forensically copy a hard drive and run it in a virtual machine to examine the effects of the malware without changing the original hard drive.

MADS6735
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.

MADS6740
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 economics 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 will also 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.

MADS6764
3 Credits
Current Issues in Africa
This course provides students with a comprehensive exploration of the current issues in Africa through a historical, political, economic and social background and country-by-country analysis. Topics will also include present economics and comparative political systems.

MADS6773
3 Credits
Current Issues in Forensic Sciences
This course explores current issues and challenges confronting the forensic science community. The issues include reviews of the scope of forensic services, the various ways forensic services are organized, the professional and education requirements for careers in forensic science. The challenges include the uneven levels of service, the admissibility of scientific evidence and testimony in courts of law and the differences between criminal and homeland security forensic investigations.

MADS6775
3 Credits
Career-development Process
The career-development process includes a number of steps which individuals may undergo numerous times. The process includes assessment of skills, interests, personality styles and values. Additional steps include effective job-search strategies as well as educational and training goals. The decision process looks at narrowing the options to determine the best choices for the individual. This course provides the theoretical and practical aspects of the career-development process.

MADS6776
3 Credits
Research Methods for Workforce Professionals
Workforce professionals need information from various sources to help make decisions for themselves and their customers. In addition to labor-market information, the workforce professional needs to look at projections for growth industries and labor demand. This course explores basic research methods as well as decision-making processes to assist the professional in providing the best choices for the customers.

MADS6777
3 Credits
Leading Volunteers in Organizations
Many organizations rely on volunteers to provide essential services to public, private and not-for-profit organizations. Issues arise with how to recruit and utilize volunteers in organizations, whether all-volunteer or a mixed agency that includes individuals where part of the workforce is paid and part are volunteers. This course explores recruitment, training and retention issues that affect such types of organizations.

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 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.

MADS6793
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 tolerance and diversity, demographics, 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 context, 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 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.
Animation

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

This major is a 56-credit degree. The fall and spring semesters are attended in-residence and the summer semesters are completed online.

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

Admissions

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

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

Graduate Admissions
No standardized testing is required.

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

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

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

Required Courses (18 credits)

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Major Electives (18 credits)
Six 3-credit ANIM5000- or higher-level courses

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

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Major Electives (18 credits)
Six 3-credit ANIM5000- or higher-level courses

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

Required Courses (18 credits)

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Major Electives (18 credits)
Six 3-credit ANIM5000- or higher-level courses
Animation

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

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

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

3D Character Animation Concentration
In this concentration, students study in-depth techniques that focus on every aspect of animating characters. Through the use of software techniques, acute observation skills and motion-capture technology, they master the skills needed to portray a high level of detail in animating believable characters and creatures.

Required Courses (36 credits)

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

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

Course Descriptions

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

This major accepts recent undergraduates, master’s-level transfer students, working professionals who want to grow their animation skills as well as people who desire a complete career change. This major is a 60-credit degree. The fall and spring semesters are attended in-residence and the summer semesters, as well as the thesis courses, are completed online.

Course Offerings
ANIM5100  History of Animation and Special Effects
ANIM5200  History of Video Games
ANIM5750  3D Character Modeling
ANIM5850  Advanced Digital 2D Animation
ANIM5900  Expressions and Scripting in After Effects
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**Required Courses (36 credits)**

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**Major Electives (24 credits)**

Eight 3-credit ANIM5000- or higher-level courses

**Video Games Concentration**

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

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**Major Electives (24 credits)**

Eight 3-credit ANIM5000- or higher-level courses

**Visual Effects Concentration**

In this concentration, students animate illusions and tricks of the eye to simulate imagined events in stories and computer-generated environments. Along with enhancing and manipulating digital imagery created in a variety of 3D and 2D software programs, they also learn to
Animation

ANIM5400 3 Credits
Character Design
Character design begins during the initial stages of the development of animated films and video games and plays a critical role in the creation and success of those pieces. In order to bring their characters to life, students in this class learn the process of designing imaginative original characters by sketching and assembling model sheets. These documents are routinely used in the industry to aid in standardizing the look, postures and personality of an animated character.

ANIM5500 3 Credits
Digital 2D Animation
2D animation generates movement in a two-dimensional imaginative space. Students in this course learn both the creative and technological skills necessary for animating characters and backgrounds in digital two-dimensional worlds. Creating bitmap and vector graphics using software programs are also covered in this course.

ANIM5600 3 Credits
3D Layers in After Effects®
When a 3D layer is created in After Effects®, it gains additional properties such as z-depth, material options, light, shadows and cameras. Students in this class expand their 3D skills to create the types of compelling animations that people are accustomed to seeing. They learn to transform 3D layers relative to the composition and customize the space to push the visuals to a higher level. Adding effects and masks to 3D layers, compositing 3D layers with 2D layers and creating and animating cameras and lights are also covered in this course. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

ANIM5700 3 Credits
Dynamic Effects and Particle Systems in After Effects®
A particle system is a technique in game physics, motion graphics and computer animation that uses a large amount of tiny graphics to mimic certain kinds of visually random events. These types of animations are very difficult to replicate with the usual rendering methods. Students in this class focus on pushing the envelope in creating realistic looking particle systems including fire, explosions, smoke, sparks, falling objects, clouds, fog, snow, rain, dust, stars and galaxies, as well as imaginary graphic effects such as glowing trails and magic spells. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

ANIM5750 3 Credits
3D Character Modeling
Characters are an integral part of many film and video game projects. In this course, students learn to create segmented and seamless 3D characters based on concept art of their own unique characters using a variety of polygonal modeling techniques. Emphasis on creating clean optimized meshes is taught in this course. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

ANIM5800 3 Credits
Compositing in After Effects®
Compositing is the joining of visual elements from separate sources into a single image, usually to give the illusion that all those elements are parts of the same environment. This course teaches students how to replace parts of an image with other graphics in a convincing, seamless way so as to appear as if they are part of the original. Students learn to combine digital backgrounds with live-action sets and objects, as well as adding elements shot in small spaces to large virtual environments in order to enhance the reality of the visuals. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

ANIM5850 3 Credits
Advanced Digital 2D Animation
This course expands on the techniques learned in ANIM5300 Digital 2D Animation. The emphasis is on a more in-depth use of the vector animation toolset and the motion editor to produce engaging animations. Students learn attention to detail and study the subtleties necessary in creating polished, high-quality animated pieces. Prerequisite: ANIM5500 Digital 2D Animation.

ANIM5900 3 Credits
Expressions and Scripting in After Effects®
Scripts automate monotonous tasks and perform complex calculations while expressions determine that a property equals something. This course teaches students how to use expressions to build connections between layer properties and to dynamically animate layers. They also learn to write scripts to assist in completing a series of commands and tell the software to perform a sequence of actions. Prerequisite: ANIM1750 Motion Graphics with After Effects® or permission of program director.

ANIM6100 3 Credits
Digital Sculpting
This class teaches digital sculpting by learning how to create realistic 3D characters using industry-standard applications. The focus is on anatomy, form and proportion while learning how to add a high level of detail to polygonal meshes utilizing the software tools. Texture painting is also discussed and taught through a variety of comprehensive demonstrations, exercises and assignments. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling or permission of program director.

ANIM6350 3 Credits
3D Particle Systems and Effects
Students learn to create and control various types of 3D particle systems to be able to implement special effects such as fire, explosions, fluids, dust, bubbles, disintegration, physics, collisions, etc. into their 3D scenes and animations. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.
Animation

ANI6400
3 Credits
3D Animation for Games
A video game animator's job is to portray the movements and behaviors that happen in the game. This course teaches students how to animate game behaviors, sequences and cut scenes in an effective way to maximize the use of a game engine's technology within the limitations of that particular platform. They learn how it may be necessary to limit the amount of motion frames and the number of graphics displayed on the screen simultaneously. Because game animation is often a combination of a number of different kinds of motions, the students in this class learn to build and assemble libraries of reusable animations. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

Fee

ANI6600
3 Credits
Game Creation
Students integrate their game ideas using a cutting-edge powerful rendering engine. This course emphasizes bringing characters and objects to life inside a gaming environment. Students use the tools provided to create interactive graphic content while focusing on reducing the time needed to create visually stunning games. Assembling scenes containing original custom visuals, audio and realistic action that perform well on any platform are also covered in this course. Prerequisite: ANIM2500 3D Computer Animation or permission of program director.

Fee

ANI6700
3 Credits
Animating Fluids
Fluid simulation is a computer-animation technique used to produce lifelike animations of liquids such as water and sludge. These kinds of simulations range in difficulty from enormously time-consuming, high-end animations for film to real-time particle systems used in modern games. This course covers creating various types of fluid effects in both 3D space as well as in 2D post. Prerequisites: ANIM1750 Motion Graphics with After Effects® and ANIM2500 3D Computer Animation or permission of program director.

Fee

ANI6805
3 Credits
Motion Tracking
Motion tracking is a cinematic practice of adding graphic elements to film footage with accurate size, location and movement in relation to the photographed elements in the scene. This course teaches students how to track the movement of a camera through live-action shots so that identical computer-generated camera moves can be duplicated using animation software. Students also learn how to composite animated elements into live-action shots so that they appear perfectly matched in perspective in order to look natural and seamless. Prerequisites: ANIM1750 Motion Graphics with After Effects® and ANIM2500 3D Computer Animation or permission of program director.

Fee

ANI6900
3 Credits
Digital 2D Game Creation
This course teaches the game-creation process of combining 2D digital art and audio with game play, and instills how good planning plays an important role in video-game production. Students learn to understand the video-game production pipeline from the planning stage and level design, to creating sprites and graphic and audio assets, to assembling a prototype of a game.

Fee

ANI7000
3 Credits
Advanced 3D Character Animation
This course continues to develop the artistic and technical skills necessary to become a successful character animator by focusing the critical principles of animation like weight, overlapping motion and subtleties through the use of animation layering and muscle simulation. Students also learn how to better show feelings of happiness, desolation and distress by articulating the personality and emotion of their animated characters to the audience. This class builds on the character rigging and animation skills learned in the previous character-animation course. Prerequisite: ANIM6300 3D Character Animation.

Fee

ANI7100
3 Credits
3D Character Animation – Weight, Overlap and Follow Through
Follow through and overlapping are techniques that help to produce more realistic movement that looks as if the character imitates the laws of physics. The achievement of believable motion and how the action follows through is frequently more necessary than the move itself to making an animation appear more convincing. In this course students analyze the subtleties of motion and learn to understand how if one body part stops other parts may overlap and follow through the leading motion, gradually coming to rest. They also learn to add weight, mass and moving holds to add life to breathing characters. Prerequisite: ANIM6300 3D Character Animation.

Fee

ANI7200
3 Credits
3D Character Animation – Emotion and Personality
Emotion and personality are the most challenging parts of character animation, because it is essential that it portrays both subtlety and scope in what is being visually communicated to the audience. In this class students learn the skills, procedures and thought processes for animating expressive faces coordinated with body language. Through the use of a variety of techniques, the focus is on evoking thought, enthusiasm and emotion in their characters’ actions. Prerequisite: ANIM6300 3D Character Animation.

Fee

ANI7250
3 Credits
Lip-Syncing
Lip-syncing is the art of making an animated character’s mouth move in unison with a prerecorded track of dialogue. To make a character appear to speak involves figuring out the timings of the speech as well as the actual animating of the mouth to match the dialogue track. This course teaches students how to make a character give the impression of speaking by use of manual timing as well as learning to use lip-syncing software. Prerequisite: ANIM6300 3D Character Animation.

Fee

ANI7300
3 Credits
Animation with Hair/Fur
From feature films to broadcast TV, fur is now commonly seen in animations the world over. In this course students learn how to apply fur and hair to their 3D characters and experiment with the software features to give it the qualities (such as styling, flyaway, clumping and kinking) that they envision. Applying dynamics, gravity, collision detection and external forces (such as wind) to the hair are also covered in this course. Prerequisite: ANIM6300 3D Character Animation.

Fee

ANI7400
3 Credits
Animation with Cloth
In computer animation, cloth simulation refers to the production of soft-body objects that animate via flexible dynamics. As opposed to rigid-body animation, the shape of soft-body objects change and flex as they move. By learning specialized rendering properties that replicate real-world physics, students apply visually realistic rendering properties to their 3D characters. The focus is to enhance the realism of animated characters wearing flowing apparel. Prerequisite: ANIM6300 3D Character Animation.

Fee
## Animation

### ANIM7425
3 Credits
**Motion Capture**
This course teaches the process of recording human movement, captured by an array of sensors which are placed on the body in a variety of combinations. Students learn to use software that records the actions of live actors and then map that motion data to 3D character models so that it performs the same movements as the actor. Whether animating for film or games, the techniques learned in this class allow for increased motion testing because of the ability to quickly animate digital 3D characters. Prerequisite: ANIM6300 3D Character Animation.

### ANIM7500
3 Credits
**Advanced Game Creation**
This course expands upon the techniques learned in ANIM6000 Game Creation. Students learn to add their own tools and to enhance performance while increasing graphic quality. This course also covers how to use the high-end customizable game-engine tools to quickly export visually exciting, fully produced games. Prerequisite: ANIM6600 Game Creation.

### ANIM7525
3 Credits
**Virtual Reality**
Virtual reality (VR) is the use of computer technology to create simulated environments where users are immersed in and able to interact with 3D worlds. In this course students learn to simulate a user’s physical presence with imaginary environments in a way that allows them to interact with it through the use of state-of-the-art VR headsets. The goal is to simulate breathtaking sensory experiences by creating 3D environments and animations, as well as incorporating audio and precise motion tracking that transports users into worlds that are beyond the imagination. Prerequisite: ANIM6600 Game Creation.

### ANIM7550
3 Credits
**Internship I**
Students work at a company or organization between five and 20 hours per week, filling an animation, interactive media or video-game role. Internships may be paid or unpaid. Prerequisite: permission of program director.

### ANIM7600
3 Credits
**Video Game Team Project**
In the industry, video games are primarily produced by a team of people. The students in this class work in groups to design and create their own video games. The type of game and the role that each person fills are determined by the group with the oversight of the professor. Prerequisite: permission of program director.

### ANIM7650
3 Credits
**Thesis I**
In the M.F.A. thesis, students write, design and produce all aspects of a comprehensive project that exhibits everything learned in the graduate program to date. Thesis I lays the groundwork for the project by developing the story as well as the previsualization pieces that are typically produced when creating an animated film or game. These include writing project treatments and drafting story proposals, character development, writing and revising scripts, sketching story concepts, developing and refining detailed storyboards, audio recording, developing sound effects, assembling and editing animatics containing sketch motions and audio and the initial steps of creating graphic elements and 3D models. Each phase of the development undergoes a number of rigorous in-class critique sessions, after which improvements are implemented. Throughout the course students maintain a journal of their processes, successes, problems and challenges. Before the student can continue on to ANIM7750 Thesis II, the project must be approved by the professor and all of the requirements listed above must be completed. Prerequisite: permission of program director.

### ANIM7700
3 Credits
**Faculty/Student Research I**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: permission of program director.

### ANIM7750
3 Credits
**Thesis II**
In this course students finish building their digital 3D character models, 3D environments and digital props for their final piece. Designing, creating and mapping textures, as well as lighting and camera placement to be used in the various 3D scenes in their thesis project are completed in this class. After these elements are prepared, the students begin animating their characters and other models within the 3D scenes. As each element and animation is developed and refined, they go through a number of in-class critiques, after which improvements are implemented based on that feedback. As rough previews and refined motion tests are rendered, they are inserted into the animatic that was produced in ANIM7650 Thesis I which continues to grow and progress the digital previsualization of the piece. Throughout the course students update their journal. At the end of this course the professor evaluates each student’s project. If the status of the project is approved, the student is permitted to move on to ANIM7850 Thesis III. Prerequisite: ANIM7650 Thesis I.

### ANIM7775
3 Credits
**Internship II**
Students work at a company or organization between five and 20 hours per week, filling an animation, interactive media or video-game role. Internships may be paid or unpaid. Prerequisite: permission of program director.

### ANIM7805
3 Credits
**Faculty/Student Research II**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: permission of program director.

### ANIM7850
3 Credits
**Thesis III**
In this course students finish and refine all of the animated scenes for the project that they began in the previous thesis courses, and the process of 3D printing will also be taught. Based on in-class critiques, a number of missing pieces may need to be created in order to complete or enhance the story, or scenes may need to be revised and re-rendered. Paying close attention to the amount of time needed to complete all of the renders, the students render the final high-res motion files for each scene upon its completion. As they are assembling the high-res files into the final edit, they will generate and composite post effects with the finished renders; enhance lighting; implement color correction; polish audio (narration, voice-over, sound effects); complete the postproduction; and design and animate the movie title and credits. In addition, the students write papers discussing their research and development phases, processes, successes, problems and challenges experienced throughout producing their project based on the journal that they have been maintaining. The papers also contain a final analysis of their project. At the end of the semester, students present their thesis projects to the public. In preparation for this, the students design display boards and tables to creatively exhibit their original concept sketches, storyboards, high-res computer printouts of various parts of their project and 3D prints of their characters and environments. The final animations will be projected on a large screen at the thesis event. In order to complete the course, students must submit their journal, written proposal, written script, concept sketches, storyboards, all of their previsualization pieces and their finished journal. *Online course.*
project, along with the written paper and the project analysis to the professor and program director for review. Prerequisite: ANIM7750 Thesis II.

ANIM7900
3 Credits
Animation Career Preparation*
This is the capstone course to be taken in the final semester prior to graduating from the program. Students present the animation work that they produced in all of their animation courses in the program to the class and discuss their professional interests and goals. Undergoing a series of follow-up critiques from their classmates, students learn to assemble and revise polished professional demo reels highlighting the strongest segments of each of their projects, focused on meeting their career goals. Based on additional critical feedback sessions, students design personalized logos that will be used to market themselves as professional animators. Personalized business cards, résumés, letters of introduction and follow-up letters are then written and designed, emulating the persona of their final logo. In order to present their demo reel and promote their animation skills to prospective employers, students learn how to plan (content, navigation, graphic design) and develop visually and technically impressive portfolio websites, exhibiting their own individual artistic style by following through with the branding established in the final logo design. How to implement and design social media presences and utilize other online avenues to market their skills and find work are also covered in this course.
Prerequisite: permission of program director.

Biology (M.S.)
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.

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 63–65. 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.

 Required Biology Courses
(20 credits)
(With or without research option above 2 credits)
The following 1-credit courses are both required and must be taken in the fall and spring semesters.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL5306</td>
<td>3</td>
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<tr>
<td>BIOL6240, BIOL6241</td>
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<tr>
<td>Molecular Cell Biology</td>
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<tr>
<td>(Lecture and Laboratory)</td>
<td>4</td>
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<tr>
<td>BIOL6705</td>
<td>3</td>
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<tr>
<td>Advances in Cell Biology</td>
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<tr>
<td>BIOL6724</td>
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<tr>
<td>Human Genetics</td>
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<td>BIOL6725</td>
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<tr>
<td>Human Evolution</td>
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<td>BIOL6728</td>
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<td>Bioethics</td>
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<td>BIOL6733</td>
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<td>Enzymology</td>
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<td>BIOL6740</td>
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<tr>
<td>Molecular Endocrinology</td>
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<td>BIOL6761</td>
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<tr>
<td>Advanced Microbiology</td>
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<td>BIOL6771</td>
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<tr>
<td>Behavioral Ecology</td>
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<td>BIOL6775</td>
<td>3</td>
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<tr>
<td>Physiological Ecology</td>
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</table>

*Online course.
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.

Concentration in Business or Biotechnology

This curriculum is designed to enable biology graduate students to have a concentration in business or biotechnology.

Curriculum Requirements

Same as for the Master of Science degree in biology (see pages 61–62), but including 12 credits of business courses or 14 credits of biotechnology courses taken as a unit concentration.

Elective Concentration Courses

Elective courses (12 credits) for the concentration in business or 14 credits of biotechnology courses 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.

Concentration in Business

Business Concentration Elective Courses (12 credits)

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........................................ 3
MGMT5012 Foundations of Management........................................ 2
MGMT6012 Organizational Behavior and Leadership..................................... 2
MGMT6112 Managing Sustainability in a Global Environment....................... 2
MGMT6621 Strategic Human Resource Management..................................... 2
MKTG5012 Marketing Principles........................................ 2
MKTG6012 Strategic Marketing........................................ 2
MKTG6112 Social Media Strategy........................................ 2

Twelve credits may be selected from the above listed elective courses for the business concentration for the Master of Science in biology degree as approved by the graduate adviser and director.

The 5000-level business concentration elective courses are prerequisites for the 6000-level courses. Chosen course electives must be completed with a minimum grade of C.

Concentration in Biotechnology

Biotechnology Concentration Courses (16 credits)

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

Concentration in Biotechnology

Biotechnology Concentration Courses (16 credits)

BIOL5306 Immunology........................................ 3
BIOL6720 Molecular Biotechnology........................................ 3
BIOL6743, BIOL6744 Topics in Bioinformatics (Lecture and Laboratory)......... 3
BIOL6840 Cell Culture........................................ 3
BIOL6845, BIOL6846 Molecular Biology Techniques (Lecture and Laboratory)........ 4

Biotechnology Concentration Electives (14 credits)

Choose from the following free elective courses.

BIOL6240, BIOL6241 Molecular Cell Biology (Lecture and Laboratory)........ 4
BIOL6632 Selected Studies in Biology........................................ 3
BIOL6661 Lab: Advanced Microbiology........................................ 2
BIOL6705 Advances in Cell Biology........................................ 3
BIOL6719 Developmental Genetics........................................ 3
BIOL6724 Human Genetics........................................ 3
BIOL6728 Biotechnology........................................ 3
BIOL6733 Enzymology........................................ 3
BIOL6745 Endocrinology........................................ 3
BIOL6747, BIOL6748 Biotechniques (Lecture and Laboratory).................. 3
BIOL6756 Dermal Pharmacology and Immunology.................................... 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 the 4-credit sequence consisting of
BIOL7803  
Research and Thesis I .......................... 2

BIOL7804  
Research and Thesis II .......................... 2

**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 mclary@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 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.

BIOL6652  
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**


**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.

BIOL6720  
3 Credits

**Molecular Biotechnology**

Purification of DNA. Manipulation of prokaryotic and eukaryotic DNA. Vectors, cloning, gene expression and in vitro mutagenesis. Production of proteins from cloned genes. Applications of recombinant DNA technology in basic research, medicine, agriculture and industry.

**Spring**

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 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, vasopression; and hormone imbalance and effects in aging, malignancy and disease.

**BIOL6743  
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.

**BIOL6744**

0 Credits

**Lab: Topics in Bioinformatics**

Experiments illustrating the topics discussed in BIOL6743 Topics in Bioinformatics. Corequisite: BIOL6743 Topics in Bioinformatics.

**BIOL6745**

3 Credits

**Endocrinology**

Physiology of hormones from endocrine and non-endocrine cells. Molecular structure, homology, biosynthesis, secretion, transport and metabolism of hormones. Mechanism of hormone action and receptor specificity. Pathophysiology of hormones. Techniques of measurement of hormone, production of hormone analogs. Fall

**BIOL6747**

3 Credits

**Biotecniques**

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: Biotecniques.

**BIOL6748**

0 Credits

**Lab: Biotecniques**

Experiments illustrating the topics discussed in BIOL6747 Biotecniques. Corequisite: BIOL6747 Biotecniques.

**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.

BIOL6891
3 Credits
Histology
The structure and functional correlations of body tissues, cells, organs and organ systems. 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 I, II
A series of lectures by invited speakers on topics of current interest. Exposure of students to research developments and techniques in selected areas of specialization.

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  Fee

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

ENVR6569
3 Credits
Wetland and Watershed Resources
Includes the study of natural characteristics of inland (freshwater) and coastal (tidal) wetland ecosystems. It also provides an overview of basic ecological principles related to watershed planning and describes the benefits of watershed management. It also examines wetland and watershed functions and values with applications to environmental impact assessment, wetlands and watershed planning, management and restoration. Course lectures and discussions will be supplemented by short, on-campus and local, off-campus field trips.

The Silberman College of Business is accredited by AACSBI - The Association to Advance Collegiate Schools of Business. AACSBI 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 credits in the M.B.A. and a minimum of 24 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 credits must be completed in residence. 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) 445-8459.

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 studies; 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 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.

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:

**Foundation Courses (12 credits)**
The foundation includes six courses. All classes are two credits.

- ACCT5012 Financial Accounting: End-User Applications 2
- DSCI5012 Statistical Data Analysis 2
- ECON5012 Economic Analysis 2
- FIN5012 Principles of Finance 2
- MKTG5012 Foundations of Management 2
- MGMT5012 Marketing Principles 2

For each foundation course, the Silberman College of Business grants waiver credit. The waiver policy that governs each course is established by the department responsible for that course. Requests for waivers must be submitted to the appropriate department and approvals received before the end of the student's first semester in the program. For further information visit the Waiver Credit Policy Procedures section of the M.B.A. Advising website.

Each waiver of a foundation course reduces the number of required credits by the amount indicated.

**M.B.A. Core (18 credits)**
The M.B.A. core consists of a total of 18 credits of required courses. These courses cannot be waived; however, a student will be eligible to transfer a maximum of 6 credits provided these credits have been earned in an M.B.A. program at another AACSB-accredited institution under the conditions listed in the Transfer Credit section. The M.B.A. core includes:

- ACCT6012 Managerial Accounting Applications 2
- DSCI6012 Operations Management 2
- ECON6012 Managerial Economics 2
- ENTR6012 Entrepreneurship and Innovation 2
- FIN6012 Corporate Finance 2

**Capstone (2 credits)**
All M.B.A. students must, within the final 8 credits of course work, complete either:

- ENTR7012 Entrepreneurship Capstone
- MGMT7012 Global Business Capstone

**International Student Requirement**
In certain circumstances it may be necessary for students to further develop their proficiency in English to ensure academic success. In these cases, students are required to take EPS5109 English for Occupational Purposes and EPS5119 English for Academic Purposes.

NOTE: Although EPS is a 0-credit course, students may elect to apply 3 developmental credits (using EPS) to their first semester plus 6 credits of graduate course work to complete full-time student schedule requirements.

**Graduation**
To qualify for graduation, the student must, within seven years from the entry date, complete the prescribed curriculum and do so with no lower than a 3.00 cumulative grade point ratio. Only grades for graduate courses offered by the Silberman College of Business at Fairleigh Dickinson University or taken off-campus with prior authorization are used to compute the cumulative grade point ratio.

Students in the M.B.A. program have the option of earning a specialization in accounting, finance, international business, management, marketing, pharmaceutical management or through business administration electives. Details about the requirements for each specialization follow.

*LAW6012  
Society, Ethics and the Legal Environment of Business 2

*MGMT6012  
Organizational Behavior and Leadership 2

*MIS6012  
Information Systems for Managers 2

*MKTG6012  
Strategic Marketing 2

Credits
LAW6012  
Society, Ethics and the Legal Environment of Business 2

MGMT6012  
Organizational Behavior and Leadership 2

MIS6012  
Information Systems for Managers 2

MKTG6012  
Strategic Marketing 2

*3624 Market Street, Philadelphia, Pa. 19104-2680; telephone: (267) 284-5000.
Accounting (M.B.A.)

Due to the variations in the requirements specified by each state to sit for the CPA Exam and licensing, students are advised to refer to www.nasba.org.

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 12 credits of accounting courses.

In addition to the College’s requirements for the Master of Business Administration degree (see page 67), students must complete the specialization requirements specific to their majors.

Required Courses (6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT6630</td>
<td>Intermediate Accounting I .......... 3</td>
</tr>
<tr>
<td>ACCT6635</td>
<td>Intermediate Accounting II .......... 3</td>
</tr>
</tbody>
</table>

Elective (6 credits)

Choose from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT6605</td>
<td>Federal Tax I: Individual .......... 3</td>
</tr>
<tr>
<td>ACCT6617</td>
<td>Cost: Measurement, Planning and Control* .......... 3</td>
</tr>
<tr>
<td>ACCT6618</td>
<td>Auditing Concepts and Methods .......... 3</td>
</tr>
<tr>
<td>ACCT6640</td>
<td>Advanced Financial Accounting .......... 3</td>
</tr>
<tr>
<td>ACCT6800</td>
<td>Graduate Independent Study .......... 1–3</td>
</tr>
</tbody>
</table>

For up-to-date course information go to http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-accounting/.

Course Descriptions
See “Course Offerings,” pages 78–90.

*Students take ACCT6617 Cost: Measurement, Planning and Control in lieu of ACCT6012 Managerial Accounting Applications within the MBA Core.

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 as well as the capstone requirement (either ENTR7012 Entrepreneurship Capstone or MGM7012 Global Business Capstone). However, students may fulfill their elective requirements with a mix 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 http://view2.fdu.edu/academics/silberman-college/graduate/mba/business-administration-mba/.

Course Descriptions
See “Course Offerings,” pages 78–90.

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 67), 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>FIN6701</td>
<td>Strategic Financial Decisions .......... 2</td>
</tr>
<tr>
<td>FIN6721</td>
<td>Financial Markets and Investments .......... 2</td>
</tr>
<tr>
<td>FIN6751</td>
<td>Portfolio Management .......... 2</td>
</tr>
</tbody>
</table>

Electives* (4 credits)

Choose two from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN6742</td>
<td>Global Finance .......... 2</td>
</tr>
<tr>
<td>FIN6751</td>
<td>Mergers and Acquisitions .......... 2</td>
</tr>
<tr>
<td>FIN6800</td>
<td>Graduate Independent Study .......... 1–2</td>
</tr>
<tr>
<td>FIN6801</td>
<td>Seminar in Corporate Finance .......... 2</td>
</tr>
</tbody>
</table>

For current course information visit http://view2.fdu.edu/academics/silberman-college/graduate/mba/mba-finance/.

Course Descriptions
See “Course Offerings,” pages 78–90.

*Other elective courses in finance will be added to this list for satisfying this requirement.
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 67), students must complete the specialization requirements listed below.

Required Courses (4 credits)

IBUS6012
International Business Concepts...............2
IBUS6020
Economics of International Trade.............2

Electives (6 credits)

Choose three from the following:
IBUS6072
International Management........................2
IBUS6706
International Marketing..........................2
IBUS6742
Global Finance....................................2
IBUS6800
Graduate Independent Study....................1–2

Course Descriptions

See “Course Offerings,” pages 78–90.

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 67), students must complete the specialization requirements listed below.

Required Courses (8 credits)

MGMT6112
Managing Sustainability in a Global Environment................2
MGMT6621
Strategic Human Resource Management......................2
MGMT6633
Leadership and Change Management..........................2
MGMT6640
Leadership Development Project........................2

Elective (2 credits)

Choose one from the following
MGMT6625
Managing a Healthy Workforce......................2
MGMT6700
Negotiation and Conflict Management........2
MGMT6800
Graduate Independent Study......................1–2

Electives (6 credits)

Choose three courses
MGMT6611
Digital Marketing Strategies..........................2
MGMT6612
Social Media Strategy..............................2
MGMT6613
Mobile Marketing Strategies.........................2
MGMT6605
Marketing Communications........................2
MGMT6800
Graduate Independent Study........................1–2

Course Descriptions

See “Course Offerings,” pages 78–90.

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 67), students must complete the specialization requirements listed below.

Specialization courses are offered online only.

Required Courses (4 credits)

MKTG6602
Marketing Research..............................2
MKTG6603
Consumer Behavior..............................2

Electives (6 credits)

Choose three courses
MKTG6611
Digital Marketing Strategies........................2
MKTG6612
Social Media Strategy..............................2
MKTG6613
Mobile Marketing Strategies.........................2
MKTG6605
Marketing Communications........................2
MKTG6800
Graduate Independent Study........................1–2

Course Descriptions

See “Course Offerings,” pages 78–90.
Pharmaceutical Management Studies (M.B.A.)

The M.B.A. with a specialization in pharmaceutical management studies 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 67), 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>PHAR6601</td>
<td>Health Care Systems and Policy</td>
<td>3</td>
</tr>
<tr>
<td>PHAR6690</td>
<td>Managing the Value Proposition</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (4 credits)

Choose two courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>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 78–90.

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 (13 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>ACCT6012</td>
<td>Managerial Accounting Applications</td>
<td>2</td>
</tr>
</tbody>
</table>

*Can be completed as part of the M.B.A. curriculum.
Business • Post-M.B.A. Graduate Certificate Program

**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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON5012</td>
<td>Economic Analysis*</td>
<td>2</td>
</tr>
<tr>
<td>ECON6012</td>
<td>Managerial Economics*</td>
<td>2</td>
</tr>
<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>
<tr>
<td>MKTG5012</td>
<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 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>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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT5012</td>
<td>Foundations of Management*</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6012</td>
<td>Organizational Behavior and Leadership*</td>
<td>2</td>
</tr>
<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>
<tr>
<td>MGMT7012</td>
<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 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>2</td>
</tr>
</tbody>
</table>

**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 Title</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>

Marketing specialization courses are offered online only.

In addition students have to complete any four courses (8 credits) from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR6112</td>
<td>Strategic Innovation Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6611</td>
<td>Digital Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6612</td>
<td>Social Media Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6613</td>
<td>Mobile Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6605</td>
<td>Marketing Communications</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6800</td>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>

**Finance Graduate Certificate**
For a Certificate in Finance, students must complete the following six courses (12 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON6012</td>
<td>Managerial Economics*</td>
<td>2</td>
</tr>
<tr>
<td>FIN5012</td>
<td>Principles of Finance*</td>
<td>2</td>
</tr>
<tr>
<td>FIN6012</td>
<td>Corporate Finance*</td>
<td>2</td>
</tr>
<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>

In addition students will be required to complete any three courses (6 credits) from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN6112</td>
<td>Finance Decisions for Sustainable Enterprise</td>
<td>2</td>
</tr>
<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>2</td>
</tr>
<tr>
<td>FIN6801</td>
<td>Seminar in Corporate Finance</td>
<td>2</td>
</tr>
</tbody>
</table>

**International Business Graduate Certificate**
(at Metropolitan Campus only)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON5012</td>
<td>Economic Analysis*</td>
<td>2</td>
</tr>
<tr>
<td>ECON6012</td>
<td>Managerial Economics*</td>
<td>2</td>
</tr>
<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>
<tr>
<td>MKTG5012</td>
<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 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>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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT5012</td>
<td>Foundations of Management*</td>
<td>2</td>
</tr>
<tr>
<td>MGMT6012</td>
<td>Organizational Behavior and Leadership*</td>
<td>2</td>
</tr>
<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>
<tr>
<td>MGMT7012</td>
<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 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>2</td>
</tr>
</tbody>
</table>

**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 Title</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>

Marketing specialization courses are offered online only.

In addition students have to complete any four courses (8 credits) from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR6112</td>
<td>Strategic Innovation Management</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6611</td>
<td>Digital Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6612</td>
<td>Social Media Strategy</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6613</td>
<td>Mobile Marketing Strategies</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6605</td>
<td>Marketing Communications</td>
<td>2</td>
</tr>
<tr>
<td>MKTG6800</td>
<td>Graduate Independent Study</td>
<td>2</td>
</tr>
</tbody>
</table>

*Can be completed as part of the M.B.A. curriculum. *Can be completed as part of the M.B.A. curriculum. *Can be completed as part of the M.B.A. curriculum.
Pharmaceutical Management Graduate Certificate
For a Certificate in Pharmaceutical Management, students must complete the following five courses (12 credits):

- **ECON5012** Economic Analysis*.......................... 2
- **MGMT5012** Foundations of Management*............. 2
- **MKTG5012** Marketing Principles* or
- **DSCI6012** Operations Management*.................... 2
- **PHAR6601** Health Care Systems and Policy.......... 3
- **PHAR6690** Managing the Value Proposition........... 3

In addition students have to complete any three courses (6 credits) from the following list:

- **PHAR6615** Pharmaceutical Marketing and Product Development**.......................... 2
- **PHAR6640** Management of Research and Technology in the Pharmaceutical Industry........ 2
- **PHAR6650** Management of Production, Purchasing and Quality Control in the Pharmaceutical Industry***.......................... 2
- **PHAR6680** Structure, Regulation and Strategy of the Pharmaceutical Industry............ 2
- **PHAR6800** Graduate Independent Study.................. 2

For Additional Information
Students interested in this program should contact the Silberman College of Business M.B.A. Offices on the Metropolitan Campus at (201) 692-2424 or on the Florham Campus at (973) 443-8459 or visit http://view2.fdu.edu/academics/silberman-college/graduate/mba/graduate-certificates/.

*Can be completed as part of the M.B.A. curriculum.
**Must take MKTG5012 Marketing Principles.
***Must take DSCI6012 Operations Management.

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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 combines in-class and online sessions. Courses are delivered in eight-week modules. 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 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 was 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. FDU undergraduates with exemplary grade point ratios are eligible to waive the GMAT/GRE requirement.
4. 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 Foreign 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)

- **ACCT5012** Financial Accounting: End-User Applications.......................... 2
- **DSCI5012** Statistical Data Analysis.......................... 2
- **ECON5012** Economic Analysis.......................... 2
- **FIN5012** Principles of Finance.......................... 2
- **MGMT5012** Foundations of Management................. 2
- **MKTG5012** Marketing Principles.......................... 2

Core Courses (20 credits)

- **ACCT6012** Managerial Accounting Applications......... 2
- **DSCI6012** Managerial Economics........................ 2
- **ENTR6012** Entrepreneurship and Innovation............ 2
- **FIN6012** Corporate Finance................................. 2
- **LAW6012** Society, Ethics and the Legal Environment of Business............. 2
- **MGMT6012** Organizational Behavior and Leadership...... 2
- **MKTG7012** Global Business Capstone or
- **ENTR7012** Entrepreneurship Capstone.................... 2
- **MIS6012** Information Systems for Managers............. 2
- **MKTG6012** Strategic Marketing............................ 2
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 Code</th>
<th>Course 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>Finance Decisions for a 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 22–24. New tuition and fee changes 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 for Executives 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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXEC5501</td>
<td>Macroeconomic Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5502</td>
<td>Social, Legal and Ethical Issues</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5503</td>
<td>Fundamentals of Management</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5504</td>
<td>Fundamentals of Marketing</td>
<td>1.5</td>
</tr>
<tr>
<td>EXEC5505</td>
<td>Fundamentals of Financial Accounting</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Business • Accounting

Master of Science (M.S.) — Accounting

There are two tracks in this 30-credit program. Completion of Track A will academically qualify students to take the CPA Exam. Track A is designed for students who have an undergraduate major or concentration in accounting. Track B is suited for those students who lack an undergraduate background in accounting and desire a focus in this area at the graduate level. Track B students need an additional 24 business course credits to sit for the New Jersey CPA Exam. 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.
5. 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.

Course Descriptions

See “Course Offerings,” pages 78–90.
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) Credits
ACCT6606 Federal Tax I: Individual .........................3
ACCT6680 Federal Tax II: Business Entities ............3
ACCT6682 Intermediate Accounting I ..................3
ACCT6683 Intermediate Accounting II ..................3
ACCT6684 Advanced Financial Accounting ..........3
ACCT6690 Financial Analysis for Accountants* ....3
LAW6657 Applied Business Law ........................3
E electives (15 credits)
Accounting Elective ........................................3
Accounting or Tax Elective .................................3
Business Elective ..............................................6
Tax electives may be chosen from the tax courses offered by the M.S. in taxation program at the University. See pages 77-78 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 have changed 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 (30 credits) Credits
ACCT6605 Federal Tax I: Individual .........................3
ACCT6606 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
ACCT6660 Advanced Financial Reporting Topics ...3
FIN6020 Financial Analysis for Accountants* ....3
LAW6657 Applied Business Law ........................3

For Information
For detailed information contact the department of accounting, taxation and law at (973) 443-8459 or (201) 692-2424.

Course Descriptions
See “Course Offerings,” pages 78–90.

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, information systems and decision sciences, 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.

*An ACCT or TAX course may be substituted with documentation of an equivalent finance class.
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>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC5012</td>
</tr>
<tr>
<td>MKTG5012</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>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG6012</td>
</tr>
<tr>
<td>MKTG6111</td>
</tr>
<tr>
<td>MKTG6112</td>
</tr>
<tr>
<td>MKTG6113</td>
</tr>
<tr>
<td>MKTG6602</td>
</tr>
<tr>
<td>MKTG6603</td>
</tr>
<tr>
<td>MKTG6605</td>
</tr>
</tbody>
</table>

Specialized Core (up to 12 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.

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG6614</td>
</tr>
<tr>
<td>MKTG6615</td>
</tr>
<tr>
<td>MKTG6616</td>
</tr>
<tr>
<td>MKTG6617</td>
</tr>
</tbody>
</table>

Experiential Learning (4 credits)
Students may seek academic credit for internships, or they may write a thesis on a digital marketing topic of their choice.

Course Descriptions
See “Course Offerings,” pages 78–90.

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

Effective management of their supply chain and operations is the key to value creation for many organizations, especially in today’s fast-paced and highly global business environment. Employers increasingly seek candidates with skills that will enable their organizations to better manage their supply chains and operations. The supply chain management (SCM) profession has therefore witnessed significant job growth coupled with steadily increasing salaries. Whether individuals are starting off in their careers or are looking to make a career transition into supply chain management, an advanced degree such as a Master of Science in supply chain management will train them in critical aspects of supply chain management and will enable them to take advantage of the growing opportunities in the field.

The M.S. in supply chain management program at Silberman College of Business is an interdisciplinary program that emphasizes methodological, conceptual and strategic aspects of the management of supply chains and operations. The program is designed to foster the development of critical skills and capabilities required to manage globally distributed and diversified supply chains.

The program can be completed within 12 months while still being employed full-time.

This program is offered under the auspices of the department of marketing, information systems and decision sciences, Silberman College of Business, Florham Campus, Madison, New Jersey, and Metropolitan Campus, Teaneck, New Jersey.

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.
5. 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 — Supply Chain Management

The M.S. in supply chain management is obtained by completing 10 required classes in foundation courses (6 credits), core courses (12 credits), enrichment courses (9 credits) and capstone (3 credits).

Foundation Courses (6 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI6600</td>
<td>Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6700</td>
<td>Introduction to Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Core Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DSCI6820</td>
<td>Logistics Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6830</td>
<td>Pricing and Demand Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6840</td>
<td>Global Sourcing, Procurement and Negotiations</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6850</td>
<td>Global Supply Chain Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Enrichment Courses (9 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI6650</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6750</td>
<td>Supply Chain Technologies</td>
<td>3</td>
</tr>
<tr>
<td>DSCI6780</td>
<td>Sustainable and Lean Six Sigma</td>
<td>3</td>
</tr>
</tbody>
</table>

Capstone Course (3 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI7004</td>
<td>Capstone Experiential Learning of Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions

See “Course Offerings,” pages 78–90.

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 graduate advising at (973) 443-8459.

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).


5. 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.


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 Admissions 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.

Contact the Office of Graduate Admissions for information.

For more information about the GMAT, call 1-800-717-4628 or 609-771-7330. Its website is https://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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAX6621</td>
<td>Advanced Federal Tax: Individual Income Taxation</td>
<td>3</td>
</tr>
<tr>
<td>TAX6622</td>
<td>Advanced Corporate Tax I</td>
<td>3</td>
</tr>
<tr>
<td>TAX6670</td>
<td>Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>TAX6830</td>
<td>Tax Research</td>
<td>3</td>
</tr>
<tr>
<td>TAX7724</td>
<td>Tax Practice and Procedure I</td>
<td>3</td>
</tr>
<tr>
<td>TAX7727</td>
<td>Advanced Federal Tax: Property Transactions</td>
<td>3</td>
</tr>
<tr>
<td>TAX7728</td>
<td>Partnership Taxation</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Electives

Three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>TAX6625</td>
<td>Estate and Gift Taxation</td>
<td>3</td>
</tr>
<tr>
<td>TAX7705</td>
<td>U.S. International Corporate Taxation</td>
<td>3</td>
</tr>
<tr>
<td>TAX7708</td>
<td>International Tax I: Sourcing and Inbound</td>
<td>3</td>
</tr>
<tr>
<td>TAX7710</td>
<td>International Tax II: Outbound</td>
<td>3</td>
</tr>
<tr>
<td>TAX7711</td>
<td>International Tax III: Special Topics</td>
<td>3</td>
</tr>
<tr>
<td>TAX7723</td>
<td>Estate and Gift Tax Planning</td>
<td>3</td>
</tr>
<tr>
<td>TAX7725</td>
<td>Advanced Corporate Tax II</td>
<td>3</td>
</tr>
<tr>
<td>TAX7726</td>
<td>Compensation: Executive Compensation and Nonqualified Plans</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 department chair.

#### 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.

**ACCT5012**
2 Credits

**Financial Accounting: End-User Applications**

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.

**ACCT5521**
3 Credits

**Financial Accounting: An End-user Approach**

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.

**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

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.

ACCT6630
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: ACCT4267 Introductory Financial Accounting, ACCT5012 Financial Accounting: End-User Applications or chair permission.

ACCT6635
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 ingnpt 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 Financial Accounting I or undergraduate equivalent.

ACCT6640
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: ACCT6630 Intermediate Financial Accounting I.

ACCT6680
3 Credits
Advanced Financial Reporting Topics
A graduate-level course for students with a strong financial-theory background. The course focuses on a wide range of financial-reporting issues. Topics include leasing, accounting for income taxes, accounting for derivatives, foreign currency translation and hedging; accounting for pensions, accounting for share-based compensation, IFRS and cash-flow statements. Prerequisite: ACCT6635 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: ACCT3243 Cost Accounting: Measurement and Control or ACCT6617 Cost: Measurement, Planning 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: ACCT3242 Intermediate Financial Accounting II and ACCT4265 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 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
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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: ACC2660 Intermediate Accounting I.

BUSI5000 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.

DSCI6000 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
Introduction to Supply Chain Management
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 role of information technology (block chain technology in supply chain management).

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 Introduction to Supply Chain Management.

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 Introduction to Supply Chain Management.

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 Introduction to Supply Chain Management.

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 Introduction to Supply Chain Management.

DSCI6830 3 Credits
Pricing and Demand Management
This course aims to give students an understanding of current topics and tools addressing the needs of an organization at the demand end of the supply chain. Rather than the traditional supply-chain management approach of minimizing costs, this course considers the demand and value-chain management focus on maximizing contributions and revenues. The strategic and tactical management of demand requires the use of appropriate pricing policies and the active balancing of supply and demand. Executive decisions, informed by best practices, are needed to best meet modern stakeholder expectations. Topics discussed include market segmentation and pricing strategy. Proven tools such as prior optimization and revenue management are introduced. Prerequisite: DSCI6600 Business Analytics.

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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 Introduction to Supply Chain Management.

DSCI6850
3 Credits
Global Supply Chain Finance
This course demonstrates how successful management of the supply-chain activities and processes tie to 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 Introduction to Supply Chain Management.

DSCI7004
3 Credits
Capstone Experiential Learning of Supply Chain Management
This capstone experience will require students to work on a project solicited and provided from real companies. The projects are related to specific knowledge and skills gained in the Master of Science in supply chain management program. The project will entail the detailed description of the project by clearly identifying the issues and the objectives the company is facing and hopes to achieve. Students will need to work with the company’s executives and faculty adviser to collect the real data, analyze them and provide a feasible solution. The primary objective of this experience is to give students the opportunity to demonstrate that they are able to apply knowledge and skills accumulated in the Master of Science in supply chain management program to a specific supply chain problem. The capstone should be completed within the last module of the program prior to graduation. Students will be advised by faculty in the completion of their project. Prerequisite: All M.S. in supply chain management 6000-level courses.

ECON5012
2 Credits
Economic Analysis
Microeconomics foundations of consumers and business decisions, review of the rationale for government intervention in specific markets, macroeconomic principles relating to the level of aggregate economic activity and government policies aimed at meeting growth, employment and price-stability goals.

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.

EHCMM801
3 Credits
Health Sector Management and Policy
This course focuses on providing 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.

EHCMM802
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: EHCMM6801 Health Sector Management and Policy.

EHCMM803
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. Quantitative and qualitative 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: EHCMM6801 Health Sector Management and Policy.

EHCMM901
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.

EHCMM902
1.5 Credits
Essentials of Health Care Financial Management
This course focuses on providing students with an understanding of the unique aspects of
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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: EHC M 6901 Fundamentals of Health Systems and Policy.

EHC M 6903 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: EHC M 6902 Essentials of Health Care Financial Management, EXEC 5508 Statistical Thinking and Methods, EXEC 5602 Financial Accounting and Reporting and EXEC 6503 Managerial Economics.

EHC M 6904 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: EHC M 6901 Fundamentals of Health Systems and Policy, EHC M 6902 Essentials of Health Care Financial Management and EXEC 5508 Statistical Thinking and Methods.

EHC M 6905 3 Credits  
**Contemporary Issues in Health Sector Management**  
This course is designed to offer students the opportunity to explore emerging issues and trends influencing the delivery of health care that may not have been covered in the standard set of health sector management specialization courses. The learning experience is designed as a seminar and will offer sufficient flexibility to accommodate the educational interests of the unique group of participants enrolled in a particular class cohort. Prerequisites: EHC M 6901 Fundamentals of Health Systems and Policy, EHC M 6902 Essentials of Health Care Financial Management, EHC M 6903 Finance for Health Care Managers and EHC M 6904 Health Care Operations Management.

EHL 6801 3 Credits  
**The Health Care and Life Sciences Industry Cluster**  
The course provides an overview of the health care/life sciences super-cluster. It identifies major forces and trends that are likely to shape the operating environment for companies in the sector and linkages among the firms in the cluster. The fundamentals of health care economics, financing, reimbursement, quality assurance and political policymaking are discussed. The spectrum of life science entities is considered in relation to the continuum of health care delivery.

EHL 6802 3 Credits  
**Legal and Ethical Issues in Health Care and Life Sciences Management**  
The course outlines the underlying social framework for current legal, regulatory and ethical issues affecting health-policy formulation and the provision of medical services. It will address how the regulatory environment impacts health care and life sciences companies. It also provides an understanding of key ethical principles of decision-making in clinical practice and research involving human subjects. An overview of intellectual property and patent law is presented.

EHL 6805 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.

EHL 6804 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.

EHL 6805 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.

EHL 6807 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.

ENTR 6012 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
### Entrepreneurship and Innovation

Entrepreneurship and Innovation

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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.

ENTR6101
2 Credits
**Small Business Management**

Given the low survival rates of start-ups, the primary aspect of small business management is scaling — moving from start-up to an ongoing business. In this course, students will learn through simulation tools how to iterate products in response to changes in the market, adapt the initial business model for different stages in the lifecycle of an entrepreneurial business and address capacity-constraint dilemmas with respect to distribution-channel issues on rapid product launch. Students will also learn how to raise growth capital through crowd-funding and learn the concept of pivoting through case studies and by examining companies. Prerequisite: ENTR6012 Entrepreneurship and Innovation.

ENTR6112
2 Credits
**Strategic Innovation Management**

This course provides an opportunity for students to gain an understanding, from a strategy 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 management 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: ENTR6012 Entrepreneurship and Innovation.

ENTR6502
2 Credits
**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: ACCT6012 Managerial Accounting Applications, ENTR6012 Entrepreneurship and Innovation and FIN6012 Corporate Finance.

ENTR6800
1–2 Credits
**Graduate Independent Study**

Studies in area of discipline with departmental approval.

ENTR7012
2 Credits
**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, markets, sizes and growth opportunities. MBA capstone course; available to every MBA candidate.

ENTR7804
2 Credits
**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 will 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: ENTR6012 Entrepreneurship and Innovation.

EXEC5501
1.5 Credits
**Macroeconomic Analysis**

This course will introduce students to the principles of macroeconomics and the application of theory for analyzing the impacts of government regulation of fiscal and monetary policy on employment, economic growth, inflation, interest rates and exchange rates.

EXEC5502
1.5 Credits
**Social, Legal and Ethical Issues**

This course is an introduction to the legal environment of business and includes coverage of regulatory agencies, litigation, contracts, business organizations and agency and employment issues.

EXEC5503
1.5 Credits
**Fundamentals of Management**

This course provides a baseline understanding of the processes of working with people and resources to accomplish organizational goals. In today's business world, highly effective executives not only apply the fundamental management principles of planning, organizing, leading and controlling, but also anticipate and adapt to change. This course explores the nature and application of these fundamental principles in the evolving environment of globalization and increased competitiveness. An integrative case study will be used to connect management principles to those from other disciplines in the executive M.B.A. foundations module.

EXEC5504
1.5 Credits
**Fundamentals of Marketing**

This course will introduce students to marketing terminology and concepts. The goal is to provide sufficient foundation knowledge to enable students to take courses in the core M.B.A. program. Accordingly, this course introduces students to such fundamental marketing concepts as the marketing mix, segmentation, marketing research and consumer behavior.

EXEC5505
1.5 Credits
**Fundamentals of Financial Accounting**

An introduction to the basic financial statements and the underlying concepts, conventions and principles.
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EXEC5506  
1.5 Credits  
**Principles of Microeconomics**  
Microeconomic foundations of consumer and business decisions, market structure and industrial organization.

EXEC5507  
1.5 Credits  
**Principles of Finance**  
The 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.

EXEC5508  
3 Credits  
**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.

EXEC6501  
1.5 Credits  
**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.

EXEC6502  
3 Credits  
**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 measurement. The course will begin with a session on understanding financial statements to provide articulation with the financial accounting prerequisite. Prerequisite: EXEC5505 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: EXEC5505 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 globalized 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**  
The 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 multidivisional 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.
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 will also 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.

FIN6021
2 Credits
Project Management
This course is designed to offer students 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.

FIN6012
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: ACCT5012 Financial Accounting; End-user Applications, DSCI5012 Statistical Data Analysis and ECON5012 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: DSCI5012 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.

FIN6012
2 Credits
Finance 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.

FIN6012
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.

FIN6012
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.

FIN6012
2 Credits
Portfolio Management
Applications of economics, statistics and investment analysis to the process of constructing, managing, revising and analyzing equity and fixed-income portfolios. Futures, options and other derivative securities are also considered, along with international investments. Prerequisite: FIN6721 Financial Markets and Investments.

FIN6701
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.

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.
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**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.

**IBUS6800**  
1–2 Credits  
**Graduate Independent Study**  
Studies in area of discipline with departmental approval.

**IBUS7715**  
1–3 Credits  
**Doing Business in Europe**  
The development and conduct of business between the United States and Europe is analyzed with a focus on U.S. relations with the region in terms of its economic goals and business practices. Emphasis is placed on the growth of economic regionalism and the movement toward European integration since 1945.

**LAW6012**  
2 Credits  
**Society, Ethics and the Legal Environment of Business**  
This course provides an overview of the legal environment of business, including the court system, business litigation and alternate dispute-resolution methods; the regulatory agencies and administrative law; basic contract and commercial law; and tort law as it relates to business issues. It also explores the relationship that exists between legal issues and the ethical issues that arise in connection with the ways that legal and social problems are addressed within the legal system.

**LAW6057**  
3 Credits  
**Applied Business Law**  
This course covers the essential areas of the Uniform Commercial Code, namely contracts, agency, negotiable instruments, secured transactions, bankruptcy, partnerships and corporations. In addition, the Securities and Exchange Acts are given appropriate coverage.

**MGMT6012**  
2 Credits  
**Foundations of Management**  
This course prepares students to understand at a basic level how the functional areas of business fit within the larger context of organizations. The role of managers and the evolution of management from the classical, human relations and behavioral-systems schools of thought will be 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.

**MGMT6621**  
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.

**MGMT6625**  
2 Credits  
**Managing a Healthy Workforce**  
People are the most important resource in determining the overall performance of organizations. Business enterprises are the largest financiers 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 MGMT6621 Strategic Human Resource Management.

**MGMT6633**  
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.
with the application of emerging technologies. Opportunities that arise in using and managing information technologies on management and web-based applications. The influence of applications, including e-business, m-commerce marketplace. The students learn the key relates to the organization and the global business operations and strategy and become 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, m-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.

MGMT6040
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
1–3 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. Prerequisites: DSCI6012 Operations Management, MGMT6012 Organizational Behavior and Leadership and MKTG6012 Strategic Marketing. Note: This course is restricted to students who have 10 or fewer credits remaining for graduation.

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, m-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.

MKTG5012
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.

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: DSCI6012 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) and search engine marketing (SEM) and display advertising. Students will learn the importance of keyword
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: MKTG6112 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: DSCI6012 Statistical Data Analysis, MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies and MKTG6602 Marketing Research.

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 pharmaceutical and related industries, including new product development and licensing. Prerequisites: MKTG6012 Strategic Marketing, MKTG6111 Digital Marketing Strategies and MKTG6605 Marketing Communications. Corequisite: MKTG6112 Social Media Strategy.

PHAR6640
2 credits
Management of Research and Technology in the Pharmaceutical Industry
Strategic, organizational and human factors involved in successful research and development operations in pharmaceutical and chemical companies are reviewed. Also covered are the selection and development of projects, creativity, liaison problems, control devices, analysis, reports and communications and other factors involved in program/project management. Prerequisites: MGMT5012 Foundations of Management and PHAR6601 Health Care Systems and Policy.

PHAR6650
2 credits
Management of Production, Purchasing and Quality Control in the Pharmaceutical Industry
Overview of the problems and factors involved in effective supply-chain management of pharmaceutical facilities, from purchasing through production and quality control. Prerequisites: DSCI6012 Operations Management and PHAR6601 Health Care Systems and Policy.

PHAR6680
2 Credits
Structure, Regulation and Strategy of the Pharmaceutical Industry
This course examines industry structure and its implications for both industry regulation and corporate strategy. Key issues of corporate strategy are addressed including, globalization, vertical integration, diversification and focus. Strategy and regulation are considered from the point of view of biotech companies, big pharmaceutical companies and industry suppliers. Prerequisite: PHAR6601 Health Care Systems and Policy.

PHAR6690
3 Credits
Managing the Value Proposition
Of strategic concern to pharmaceutical managers, regardless of their particular career focus, is the current emphasis on delivering “value” to stakeholders (whomever they may be). Successful response to this challenge requires a balanced approach to managing the effectiveness (quality) and efficiency (cost) of products/services delivered. The role of managed-care organizations as adjudicators of health care coverage and value will be explored. As their course project, students will be challenged to develop a compelling value proposition for a product or service germane to their chosen area 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, reorganizations, and liquidations. S corporations are also 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.

**TAX6850**
3 Credits
**Tax Research**
A study and implementation of tax research techniques, including internet and proprietary research databases. Through a variety of written projects, oral presentations and class material, the student will develop the ability to identify, research and communicate the solutions to a variety of tax issues that are encountered in practice. Emphasis will be on the development of sound research and writing skills. Prerequisites: TAX6621 Advanced Federal Tax I: Individual Income Taxation, TAX6622 Advanced Corporate Tax I and TAX7724 Tax Practice and Procedure I.

**TAX7705**
3 Credits
**U.S. International Corporate Taxation**
A comprehensive course for corporate tax practitioners who do not choose to specialize in international tax. The course is an intensive course limited in scope. Certain topics, such as foreign tax credit and Subpart F, are covered in the same depth as they are in specialist courses, but offer only limited, if any, coverage of other specialist topics. The goal is to teach those operating in a large corporate environment what they need to know to function as an international tax person. This course covers topics such as the foreign tax credit, sourcing of income, deemed paid credits, separate limitation categories, allocation and apportionment rules and Subpart F. Prerequisite: TAX6622 Advanced Corporate Tax I. TAX7725 Advanced Corporate Tax II recommended. Waivers may be granted by the program director in consultation with the course professor.

**TAX7708**
3 Credits
**International Tax I: Sourcing and Inbound**
This first of three courses for international tax specialists provides in-depth coverage of the source-of-income rules and U.S. taxation of foreign persons. The course also explains the rules for U.S. taxation of international assignees, provides an overview of income tax treaties and covers withholding taxes.

**TAX7710**
3 Credits
**International Tax II: Outbound**
This second course for international tax specialists covers foreign tax credits for corporations and related topics. Included are creditable taxes, separate limitation categories, deemed paid credits, allocation and apportionment, Subpart F, PFIC rules and the various international tax implications of the American Jobs Creation Act of 2004. Prerequisites: TAX6622 Advanced Corporate Tax I and TAX7708 International Tax I: Sourcing and Inbound or TAX7705 U.S. 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: ACCCT6606 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.

TAX7755  
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.

TAX7756  
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 nondiscriminatory states.

TAX7758  
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.

TAX8840  
3 Credits  
**Taxation of S Corporations: Selected Studies**  
This course undertakes an in-depth study and analysis of the tax laws that apply to S corporations and their shareholders. Topics will include eligibility, election, revocation and termination, stock and debt basis, losses, distributions, various corporate level taxes, subsidiaries, fringe benefits and comparisons to other forms of business entities. Prerequisites: ACCCT6606 Federal Tax II: Business Entities and TAX6622 Advanced Corporate Tax I.

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 this page through 95.

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 biochemistry 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 biochemistry, 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.

Core Courses

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Two of the following three courses:

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Other Courses

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<td>CH EM 6803</td>
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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 this column.

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* A student may substitute 9 credits of additional chemistry courses for the CH EM 6801, CH EM 6802 Research and Thesis and CH EM 6803 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. The thesis option is not open to the pharmaceutical chemistry concentration student.

** Up to 6 credits of graduate courses in a single area outside of chemistry to be approved by adviser 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.

California State University, Chico

Chemistry
Department of Chemistry and Biochemistry

CHEM5242
3 Credits
Physical Chemistry II
Introduction to the principles of kinetics, quantum mechanics, spectroscopy and molecular structure.
Spring

CHEM5803
2 Credits
Foundations in Chemical Analysis
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.

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.
Spring

CHEM6631
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.

CHEM6663
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 receptorology 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 (IETSM) teachers only.

CHEM6769
0–3 Credits
Curricular Change in Physical Science
The course is offered to support teachers currently involved within the Institute for the Enhancement of Teaching Science and Math.

CHEM6773
3 Credits
Polymer Chemistry
A study of natural and synthetic polymers derived from free radical, cationic and anionic polymerizations.

CHEM6781
3 Credits
Chemistry of Natural Products
Chemical and biochemical transformations of selected natural products.

CHEM6800
1–3 Credits
Graduate Independent Study: 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.
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.

CHEM7735
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.)

CHEM7775
3 Credits
**Biochemistry II**
Continues the study of the molecular basis of life. Topics include more details and discussions of current research: structure of biological molecules, mechanisms of enzyme action, metabolism with emphasis on energy production and use, the expression of genetic information and cellular signaling and signal transduction.

CHEM7785
3 Credits
**Physical Biochemistry**
The physical chemistry of biological macromolecules and systems of biochemical interest.

CHEM7891
1–3 Credits
**Internship/Laboratory Work Experience**
Provides on-the-job education and training in the concepts presented in the graduate pharmaceutical chemistry curriculum. Students must submit for the University’s approval a proposal from the employer detailing the nature of the intended work. Weekly contact must be maintained with the University’s adviser to confirm the quality of the work experience. A report at the conclusion of the working experience is required, detailing both the educational and training aspects of the job. Prerequisite: students must have been enrolled in the graduate pharmaceutical chemistry program for at least 18 graduate chemistry credits.

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**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 (12 credits)**

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<td>CHEM6781</td>
<td>Biochemistry</td>
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<td>CHEM6733</td>
<td>Enzymology</td>
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<tr>
<td>CHEM7713</td>
<td>Structural Inorganic Chemistry</td>
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**Informatics Concentration Requirements (21 credits)**

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<td>Lab: Topics in Bioinformatics</td>
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<tr>
<td>CHEM6751</td>
<td>Pharmaceutical Discovery Informatics</td>
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<tr>
<td>CHEM6752</td>
<td>Drug Design and Discovery</td>
<td>3</td>
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<tr>
<td>CHEM6755</td>
<td>Medicinal Chemistry</td>
<td>3</td>
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<tr>
<td>CHEM7737</td>
<td>Chemical Analysis of Pharmaceuticals</td>
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<td>MATH6729</td>
<td>Statistical Programming</td>
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<tr>
<td>MATH6737</td>
<td>Applied Statistics I</td>
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**Pharmaceutical Chemistry Concentration Requirements (12–13 credits)**

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</tr>
<tr>
<td>CHEM6754</td>
<td>Drug-delivery Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Free Electives (9 credits)**

9 credits selected from any 3000-level or higher chemistry (CHEM), cosmetic science (COSC), biology (BIOL), marketing (MKTG), pharmaceutical management (PHAR), mathematics (MATH), management (MGMT) or physics (PHYS) courses including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM6801</td>
<td>Research and Thesis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6806</td>
<td>Graduate (Non-thesis) Research in Chemistry</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.

**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.

**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.

**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 toxicology.

**CHEM6761**
3 Credits
**Advanced Organic Chemistry**
Advanced topics in organic chemistry, stereochemistry, organophosphorous-, organoborono-, 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.

**CHEM6781**
3 Credits
**Biochemistry**
Chemistry of substances of biological significance, structures and mechanisms of hydrolytic and respiratory enzymes, biosyntheses of proteins, bio-oxidations and molecular structures of complex molecules.

**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.

**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, bioinorganic 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 3.30 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN7700</td>
<td>The Counseling Profession: History and Theories</td>
<td>3</td>
</tr>
<tr>
<td>COUN7701</td>
<td>Counseling Skills and Practices</td>
<td>3</td>
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</tbody>
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**Credits**

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<tr>
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</thead>
<tbody>
<tr>
<td>COUN7702</td>
<td>Diagnosis/Treatment Planning</td>
<td>3</td>
</tr>
<tr>
<td>COUN7703</td>
<td>Development Across the Life Span</td>
<td>3</td>
</tr>
<tr>
<td>COUN7704</td>
<td>Crisis Intervention</td>
<td>3</td>
</tr>
<tr>
<td>COUN7705</td>
<td>Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN7706</td>
<td>Lifestyle and Career Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN7707</td>
<td>Family Systems and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN7708</td>
<td>Appraisal of Individuals: Assessment and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>COUN7709</td>
<td>Multicultural Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN7710</td>
<td>Behavioral Research</td>
<td>3</td>
</tr>
<tr>
<td>COUN7711</td>
<td>The Professional Counselor: Ethical Issues</td>
<td>3</td>
</tr>
<tr>
<td>COUN7713</td>
<td>Addictions Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN8700</td>
<td>Program Planning and Evaluation: Prevention and Education</td>
<td>3</td>
</tr>
<tr>
<td>COUN8706</td>
<td>Counseling: Sexual Issues</td>
<td>3</td>
</tr>
<tr>
<td>COUN9800</td>
<td>Fundamentals of Supervision in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6810</td>
<td>Schools, Communities and Substance Abuse**</td>
<td>3</td>
</tr>
</tbody>
</table>

**Clinical Course Sequence**

- COUN7701 Practicum ........................................... 3
- COUN9702 Internship I ........................................ 3
- COUN9703 Internship II ....................................... 3
- COUN9704 Internship III (for students unable to complete 600 hours in two semesters or who opt for additional fieldwork) ................... 3

**Comprehensive Exam**

- COUN9900 Comprehensive Exam** ................................ 0
- COUN9901 Comprehensive Exam II: Electronic Portfolio Review .................................................. 0

*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

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 COUN9701 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.

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.

COUN7713
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.

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 300-hour 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 or for those students who wish to obtain additional clinical experience. 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.
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. An essay articulating the prospective student’s goals and expectations and the relationship of those goals and expectations to the program.
4. Two recent letters of recommendation.

Students may be admitted on a nonmatriculated or probationary status with full matriculation upon maintaining a minimum CGPR of 3.00 and no grade below B in the first 9 credits.

Admission to the five-year B.A./M.A. program requires an undergraduate CGPR of 3.00 or higher.

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>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCOM6001</td>
<td>Principles and Practices of Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCOM6002</td>
<td>Professional Writing and Editing</td>
<td>3</td>
</tr>
<tr>
<td>MCOM6003</td>
<td>Presentation Methods</td>
<td>3</td>
</tr>
<tr>
<td>MCOM6004</td>
<td>Executive Lectures</td>
<td>3</td>
</tr>
<tr>
<td>MCOM6005</td>
<td>Group Communication and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MCOM6006</td>
<td>Research Methods</td>
<td>3</td>
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Capstone Experience (3 credits)

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MCOM6099</td>
<td>The Capstone Experience: Principles into Practice</td>
<td>3</td>
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Context Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MCOM7001</td>
<td>Communication, Culture and Change</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7002</td>
<td>International Communication and Culture (at Wroxton College)</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7003</td>
<td>Communication and Globalization</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7101</td>
<td>Communication and Technology</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7102</td>
<td>Narrative Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7103</td>
<td>Language and Communication</td>
<td>3</td>
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Public Context

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MCOM7201</td>
<td>PR in the Modern Organization</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7202</td>
<td>Crisis Communication</td>
<td>3</td>
</tr>
<tr>
<td>MCOM7203</td>
<td>Public Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

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
Principles and Practices of Communication

MCOM6002
Professional Writing and Editing

MCOM6003
Presentation Methods

MCOM6004
Executive Lectures

MCOM6005
Group Communication and Leadership

MCOM6006
Research Methods

MCOM7001
Communication, Culture and Change

MCOM7002
International Communication and Culture (at Wroxton College)

MCOM7003
Communication and Globalization

MCOM7101
Communication and Technology

MCOM7102
Narrative Communication

MCOM7103
Language and Communication

MCOM7201
PR in the Modern Organization

MCOM7202
Crisis Communication

MCOM7203
Public Communication

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.
Spring

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.
Spring

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 course explores a variety of forms of narrative communication taken 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 
3 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
Public 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 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.
Applications 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

*Students may substitute EENG7709 Embedded Systems.
**Either EENG7737 Computer Communication Networks or CSCI6751 Computer Networks may be taken, but not both.
Computer Science

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 104).

Course Offerings
See Computer Science and Electrical Engineering course offerings pages 104–110 and 156–158.

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.

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 prerequisite courses.

Prerequisite Courses (12 credits)
The prerequisite courses for the M.S. in computer science are:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</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</td>
<td>3</td>
</tr>
</tbody>
</table>

Core Requirements (15 credits)
The required core courses for the M.S. in computer science are:

<table>
<thead>
<tr>
<th>Course Number</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>CSCI6620</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6623</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6638</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7645</td>
<td>Systems Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

*Either EENG7737 Computer Communication Networks or CSCI6731 Computer Networks may be taken.
Elective Courses (15 credits)
Elective courses in computer science are listed with course numbers ranging from CSCI6617 to CSCI8891. Students may register for CSCI891 Internship/Work Experience only after completing 18 graduate credits.

Students may take up to 6 credits in non-CS  prefixed courses with the permission of their adviser. An additional 3 to 6 credits of non-CS 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>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5505 Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5555 Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5565 Assembly Language</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6617 Computer Game Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6723 Database Project with Visual Basic</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6810 Java and the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6844 Programming for the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7645 Systems Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7871 Unix Shell Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

or

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5525 Database Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6869 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6873 Firewalls and Intrusion-detection Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7741 Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7783 Information Security</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Computer Security Certificate
The certificate program in computer security provides individuals with expertise in hardening computer systems, as well as 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>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5525 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6869 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6873 Firewalls and Intrusion-detection Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7741 Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7783 Information Security</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 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.

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.

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>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5505 Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6625 Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6882 Data Warehouse and Data Mining</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7741 Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7781 Advanced Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7785 Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7785 Distributed Database Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

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.
Computer Science

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>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI5505 Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI5555 Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6731 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6735 Client-server Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6810 Java and the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6844 Programming for the Internet</td>
<td>3</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6731 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>EENG7737 Computer Communication Networks</td>
<td>3</td>
</tr>
</tbody>
</table>

15 credits (five courses) are to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI6730 Advanced Network: TCP/IP and Routing</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6732 Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6736 Wireless LANs</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6844 Programming for the Internet</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6869 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>EENG6747 Digital Communications</td>
<td>3</td>
</tr>
<tr>
<td>EENG7738 Wireless Communication</td>
<td>3</td>
</tr>
<tr>
<td>EENG7748 Advanced Digital Communications</td>
<td>3</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, M.S. in computer engineering or M.S. in Electrical Engineering (specialization in digital signal processing and communications) program. Other courses may be substituted with prior approval of the academic adviser.

Degree Options
Introduction to Computer Science
Introduction to Computer Science II
Mathematics for Computer Science and MIS
Telecommunications and Networking Certificate
Aleida A. Femandez
Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

Data Structures
3 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.

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.

CSCI6603 3 Credits
Computer Architecture

Fall
A n introduction to the fundam ental 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

CSCI6689 3 Credits Human-Computer Interaction
Human-computer interaction integrates the fields of computer science, cognitive psychology, arts and design. This course covers the principles of human-computer interaction, user interface design and usability analysis of systems. Students will learn about the user-experience process lifecycle, contextual inquiry, contextual analysis, design thinking, ideation, sketching, design production, low and high fidelity prototyping, empirical evaluation and feedback and affordances. They will apply these principles in weekly activities, assignments and a final project. Students will also read research papers and write a term paper.

Fall, Spring

CSCI6690 3 Credits Combinatorics
Arrangements, selections and distributions. Generating functions, partitions and recurrence relations. Inclusion-exclusion principle. Graph models and isomorphisms. Planarity, Euler and Hamilton circuits. Graph coloring, Trees and graphs algorithms. Applications particularly to computer science. Prerequisite: CSCI5551 Mathematics for Computer Science and MIS.

CSCI6617 3 Credits Computer Game Programming
Introduction to computer-game development. Topics include fundamentals of Microsoft DirectX game and graphics libraries, 2D graphics and animation, audio output, keyboard/mouse handling and fundamentals of 3D modeling and programming. Prerequisite: CSCI5505 Introduction to Computer Programming.

CSCI6618 3 Credits Cloud Computing
This course covers critical cloud topics such as cloud-service models (IaaS, PaaS, SaaS); elastic computing; cloud storage; cloud databases; cloud security; and architecting, developing and deploying apps in the cloud. Prerequisite: CSCI5505 Introduction to Computer Programming.

CSCI6620 3 Credits Software Engineering

Fall, Spring

CSCI6623 5 Credits Database Systems

Fall, Spring

CSCI6638 3 Credits Operating Systems
An introduction to the fundamental principles of operating systems in terms of resource
Computer Science

theories of decision making; dialog, database and model management; classes of models; DSS development: tools and methodologies. Prerequisite: CSC16720 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, JDBC, 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, multicast, 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., MD9, 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: CSCI5305 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. Topics 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.

CSCI6753
3 Credits
Machine Learning
This course covers the key concepts of machine learning. The topics covered are data and data mining, supervised learning, Bayesian decision theory, decision trees, clustering, reinforcement learning, and evaluation methods and applications of expert systems. Prerequisite: CSCI5555 Data Structures.
learning and nonsupervised learning. Students will learn machine learning algorithms and apply them to some big data problems in industry. This is a project-oriented course. Each student is required to complete a project. Prerequisite: prior knowledge of statistics and probability.

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-orientated 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
2–5 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.

CSCI6806
3 Credits
Computer Science Graduate Capstone Project
Students each develop an independent computer science capstone project under the guidance of a faculty adviser. They utilize their past course work, modern tools, techniques and the proper methodology; follow professional practice; and exercise sound judgment in researching, analyzing, designing, developing, testing, documenting and managing a real-world computer science project. Prerequisite: Completion of at least 18 credits.

CSCI6807
3 Credits
Cybersecurity and Information Assurance Graduate Capstone Project
Students each develop an independent cybersecurity and information assurance capstone project under the guidance of a faculty adviser. They utilize their past course work, modern tools, techniques and the proper methodology; follow professional practice; and exercise sound judgment in researching, analyzing, designing, developing, testing, documenting and managing a real-world cybersecurity and information assurance project. Prerequisite: Completion of at least 18 credits.

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, multithreading, 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.

CSCI6841
3 Credits
Cybersecurity Systems Engineering
This course covers advanced systems engineering concepts related to embedded Linux programming and cybersecurity. Students will gain experience in setting up the embedded Linux operating system and support software, programming in assembly language, writing device drivers and adding functions to the Linux Kernel. Other activities include creating a network stack, providing a presentation layer for application programs and developing a sophisticated and complex application program written in C for use in encryption and decryption of network traffic. Prerequisites: CSCI6638 Operating Systems and CSCI7645 Systems Programming.

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
Computer Science

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 superceded 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, CSCI5553 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: CSCI5303 Introduction to Computer Programming and CSCI6738 Cybersecurity.

CSCI6863
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 unobtainable) 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.

CSCI6875
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, MATH3300 Statistics I or permission of department chair.

CSCI6881
3 Credits
Machine Learning
This course introduces the fundamental concepts of machine learning. Topics covered include vector machines, kernel methods, boosting, online learning, multiclass learning, ranking, repression and reinforcement learning. Students will work on projects implementing algorithms discussed in class. Prerequisite: CSCI6880 Data Mining.

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 relationship 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: CSCI5553 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 estimation, applications such as fingerprint identification, handwriting signature verification, face recognition will be discussed.

CSCI7781
3 Credits
**Advanced Database Systems**
Database performance, database reorganization, integrity and concurrency, transaction analysis, recovery database aspects, logical database design and physical database design. Prerequisites: CSCI6623 Database Systems and SQL programming ability.

CSCI7783
3 Credits
**Information Security**
This course will study the important area of information security. It will cover both security management and the technical components of security. Topics will include many of these areas: security analysis, logical security design, physical security design, implementation of security systems and security maintenance. Prerequisite: CSCI6623 Database Systems.

CSCI7785
3 Credits
**Distributed Database Systems**
Theory of distributed databases and comparison to centralized databases. Topics include location transparency, locking, deadlock, data sharing and time-stamping. A project to implement a small distributed database system is of prime importance to the course. Prerequisite: CSCI6623 Database Systems.

CSCI7788
3 Credits
**Advanced Oracle SQL Performance and Tuning**
Performance measurement and tuning of Oracle SQL applications. Analysis of Oracle database architecture with regard to optimizer modes. Interaction of SQL language and database engine. Prerequisites: CSCI6623 Database Systems and SQL programming ability.

CSCI7795
3 Credits
**Building Electronic Commerce Systems**
This course covers constructing complete client-server 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: CSCI6623 Database Systems, CSCI6758 Electronic Commerce, CSCI6810 Java and the Internet and CSCI6844 Programming for the Internet. Fall

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: CSCI5555 Data Structures and CSCI6638 Operating Systems.

CSCI7859
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 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 scripting/writing concepts, commands and packages that are needed to manage a Unix system. Prerequisite: CSCI7871 Unix Shell Programming.
Computer Science

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, CSCI6623 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.

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.

MATH6630
0–3 Credits
Special Topics in Mathematics Education
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 exploration (mixed-models analysis, multivariate statistical analysis, longitudinal analysis and survival analysis) and a programming approach to report writing. Prerequisites: 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, logistics and survival analysis. Time permitting, additional topics include Monte Carlo methods, mixed models and classification and regression trees. Prerequisite: MATH6737 Applied Statistics I.

MATH6775
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, queuing models and forecasting.

MATH6830
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: MATH2203 Calculus III.

MATH6837
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.

MATH6838
3 Credits
Probability and Statistics II
As a continuation of MATH6837 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: MATH6837 Probability and Statistics I.

MATH6841
3 Credits
Higher Geometry
Axiomatics, groups of transformations and invariants, Erlanger Program, Euclidean and Lobachevskian geometry, special topics.

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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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL6756</td>
<td>Dermal Pharmacology and Immunology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6526</td>
<td>Product Development</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6529</td>
<td>Microtoxicology and Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>COSC6543</td>
<td>Hair-care Raw Materials and Formulations</td>
<td>3</td>
</tr>
<tr>
<td>COSC6547</td>
<td>Skin-care Raw Materials and Formulations</td>
<td>3</td>
</tr>
<tr>
<td>COSC6548</td>
<td>Cosmetic Science Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS6753</td>
<td>Applied Colloid and Surface Science</td>
<td>3</td>
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Cosmetic Science Electives (6 credits minimum)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL6728</td>
<td>Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6546</td>
<td>Perfumery</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6773</td>
<td>Polymer Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM6781</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>COSC6542</td>
<td>Claims Substantiation</td>
<td>3</td>
</tr>
<tr>
<td>COSC6549</td>
<td>Color Cosmetics</td>
<td>3</td>
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</table>

Free Electives (6 credits maximum)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<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>
<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>BIOL5000</td>
<td>Biology Elective (BIOL5000 or higher)</td>
<td>1–3</td>
</tr>
<tr>
<td>CHEM5000</td>
<td>Chemistry Elective (CHEM5000 or higher)</td>
<td>3</td>
</tr>
<tr>
<td>COMM5000</td>
<td>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).

COSC6543
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.
Creative Writing

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 (M.F.A.)
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 and on page 113.

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 all scheduled events, 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 School of the Arts, 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) and
- 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
Eighth-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
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
School of the Arts

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 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 craft in two works of creative nonfiction.

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 closely 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 discussion, 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
5 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 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.

CRWR7540
6 Credits
Fiction Writing 1
M.F.A. fiction module 1 course for undergraduates in their senior year in the B.A./M.F.A. in creative writing program.

CRWR7541
6 Credits
Fiction Writing 2
M.F.A. fiction module 2 course for undergraduates in their senior year in the B.A./M.F.A. in creative writing program.
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

It is recommended that all students begin with the foundation course CWLT8001 Reading Like a Writer, which runs in early May and 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 readerly aspects of the literature often taught in high school, including traditional literature (Irish literature, Chaucer, young adult literature); non-Western literature (African literature, world literature); and intercultural literature (ethnic American literature).

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

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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Writing and Critiquing Courses (one from each genre)

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<tr>
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Literature Courses (two required)

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<tr>
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</table>
Creative Writing and Literature for Educators

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 sessions. Check Coursefinder at www.fdu.edu to see which courses will be offered each semester.

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 nonfiction. 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.

Literature Electives (two required)

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 skits and situation comedy to classic literary satire, parody and farce from around the world. The class will look at joke structure, creation of comic personae and the evolution of comic technique, with students trying their hand from time to time at writing within the various comic genres themselves.

CWLT8201
4 Credits
Ethnic-American Literature
This course focuses on the latter half of the 20th century and examines different racial and ethnically hyphenated groups through fiction, autobiography, poetry and film. Discussion of texts by Jewish-Americans, African-Americans, Indian-Americans, Native Americans, Mexican-Americans and others will combine close textual analysis with attendant theories of identity and multiculturalism.

CWLT8203
4 Credits
Chaucer in Our Time
The course examines Chaucer’s oeuvre in the context of its critical and creative reception; considers Chaucer’s contemporary relevance in and out of the classroom.

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.

CWLT8211
4 Credits
Modern Poetry
The course will focus on recent work by living American poets, mostly written within the last 15 or 20 years, with one exception, the poems of Anne Sexton (which the class will look at to establish a base for comparison). Students will primarily read complete volumes by individual poets, rather than scattered single poems in anthologies, focusing on how poets create identifiable voices, a unique poetic language and poetic landscape that is undeniably their own. The class also will focus particularly on the craft and form of the featured poets. Poets studied will include, among others (in addition to Sexton), C.K. Williams, Kim Addonizio, Paul Muldoon, Rita Dove and Billy Collins.

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.

CWLT8217
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.

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
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.

CWLT8221
4 Credits
Fantasy, Myth and the Medieval
This course looks at modern and contemporary fantasy along with older stories: myth, folklore and medieval literature. Sometimes this old material is an immediate source — as in Tolkien or CS Lewis, who were both professional medievalists — and sometimes the relationship is more diffused, but still instructive. The class will trace the emergence of the fantasy genre, and look at major fantasy phenomena (Lord of the Rings, Harry Potter, “Game of Thrones,” “Dungeons & Dragons” and its derivatives — some familiarity with these will be expected) as well as lesser-known works that present a particular interest. The class will also discuss relevant issues in theory. The goal is to develop practices for teaching the new through the lens of the old, and vice versa, and to equip students more richly to craft their own works of fantasy.
Criminal Justice

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 (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>CRIM6000 Professional Seminar in Criminal</td>
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<tr>
<td>Justice</td>
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<tr>
<td>CRIM6005 Advanced Criminological Theory</td>
<td>3</td>
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<tr>
<td>CRIM6010 U.S. Constitution, Public Policy</td>
<td>3</td>
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<tr>
<td>and Criminal Justice</td>
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<tr>
<td>CRIM6025 Social Science Research Methods</td>
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<tr>
<td>CRIM8000 Critical Analysis of Criminal Justice</td>
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Elective Courses (18 credits)

Choose six courses from below:

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<td>Justice and Criminology</td>
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<td>CRIM6020 Statistics and Data Analysis</td>
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<td>CRIM7020 Ethics, Politics and Justice</td>
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<td>CRIM7025 Comparative Criminal Justice Systems</td>
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<tr>
<td>CRIM7030 Principles of Leadership</td>
<td>3</td>
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<tr>
<td>CRIM7060 Social Justice Advocacy</td>
<td>3</td>
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<tr>
<td>CRIM7065 Crime, Victimology and Risk</td>
<td>3</td>
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<tr>
<td>Reduction..................................... 3</td>
<td></td>
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</tbody>
</table>

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

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*Waivers for applicants who do not meet the grade point ratio or standardized test scores will be considered on an individual basis.*

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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM6005</td>
<td>3</td>
<td>Advanced Criminological Theory</td>
<td>This course will take a vertically integrative perspective on criminological theory, to include examining crime and criminology and various forms of criminal behavior. Taking an implicitly 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.</td>
</tr>
<tr>
<td>CRIM6010</td>
<td>3</td>
<td>U.S. Constitution, Public Policy and Criminal Justice</td>
<td>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.</td>
</tr>
<tr>
<td>CRIM6015</td>
<td>3</td>
<td>Research Methods in Criminal Justice and Criminology</td>
<td>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.</td>
</tr>
<tr>
<td>CRIM6020</td>
<td>3</td>
<td>Statistics and Data Analysis</td>
<td>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).</td>
</tr>
<tr>
<td>CRIM6025</td>
<td>3</td>
<td>Social Science Research Methods</td>
<td>This course will emphasize the conceptual foundations and methodological approaches used in social science research. This course introduces tools of quantitative reasoning and statistics that can be used to address problems in basic research and policy within social sciences, particularly in the criminal justice field. The primary objectives of the course are to build familiarity with the fundamentals of probability and statistical analysis, central concepts of research design and norms of ethical behavior in research.</td>
</tr>
<tr>
<td>CRIM7020</td>
<td>3</td>
<td>Ethics, Politics and Justice</td>
<td>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, to include the role and influence of politics, are explored through the use of case studies and critical incidents, and examining appropriate and applicable strategies.</td>
</tr>
<tr>
<td>CRIM7025</td>
<td>3</td>
<td>Comparative Criminal Justice Systems</td>
<td>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.</td>
</tr>
<tr>
<td>CRIM7030</td>
<td>3</td>
<td>Principles of Leadership</td>
<td>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.</td>
</tr>
<tr>
<td>CRIM7065</td>
<td>3</td>
<td>Crime, Victimology and Risk Reduction</td>
<td>This course will focus on crime victims in terms of factors leading up to and consequences of criminal events. It will examine victimization patterns, typologies, resources, consequences, the criminal justice response, restorative justice and legal rights. It also will analyze the dynamics of various violent crimes for warning signs, criminal purpose/select and strategies to reduce the risk of victimization.</td>
</tr>
<tr>
<td>CRIM7070</td>
<td>3</td>
<td>Contemporary Issues in Crime and Justice</td>
<td>This course provides a critical examination and analysis of contemporary issues related to crime, criminal justice and public policy. Examples of topics include juvenile justice, police operations, sentencing, community corrections, capital punishment, decriminalization of drugs, transnational crime, terrorism, cyber crime and the implications of emerging technologies in the administration of justice.</td>
</tr>
<tr>
<td>CRIM7080</td>
<td>3</td>
<td>Politics and Policies of Criminal Justice</td>
<td>Topics will include the Constitution of the United States and how the safeguards in the Bill of Rights have evolved over time. The course will also focus on how laws and criminal justice policies are formulated, as well as why certain acts are considered serious crimes and others are not. Issues of how money and power affect policies in criminal justice will be examined. Topics of victims’ rights, police brutality, court process, sentencing, prisoner treatment and other policy matters in the criminal justice system will be reviewed. Prerequisite: CRIM6000 Professional Seminar in Criminal Justice.</td>
</tr>
<tr>
<td>CRIM7081</td>
<td>3</td>
<td>Civil Rights and the Administration of Justice</td>
<td>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.</td>
</tr>
</tbody>
</table>
Cyber and Homeland Security Administration

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.

CRIM7084
3 Credits
Transnational Crime and Global Issues
This course will examine the systemic problem of crime that transcends international borders that capitalize on the use of violence and corruption in a technologically advancing global society. Transnational crime includes, but is not limited to, gambling; money laundering; human smuggling; prostitution; cybercrime; terrorism; and the trafficking of humans, drugs, weapons, endangered species, body parts and nuclear materials. The course will examine the legal, economic, tactical, technological and geopolitical dynamics to combat transnational crime with a specific focus on coordinating domestic and international public policy.

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.

CRIM7086
3 Credits
Religion and Terrorism
This course is designed to have the student understand working definitions of the terms terrorism and religion and how these are applied by groups using said terms for personal and group agendas often through violent means. The course further seeks to examine the various interpretations of religion within major faiths and delve into perceived justifications for the use of terror. It will provide students with examples of organizations and terror groups that have and continue to employ religion as the basis of terrorist action through case study and determine the means for countering religious ideology as a pretext for violence.

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.

CRIM7800
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.

CRIM8050
3 Credits
Master's Research Project
This course is designed to provide research of a contemporary issue within the study of criminal justice. Students are expected to design and complete an original research project under the supervision of a faculty member of the School of Criminal Justice, Political Science and International Studies.

Cyber and Homeland Security Administration (M.S.)

The Master of Science (M.S.) in cyber and homeland security administration 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 cyber and 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 cyber and 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 cyber and 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
Cyber and Homeland Security Administration

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 cyber and 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 post-graduate studies;
3. A written statement of 1,000 words on current job responsibilities, duties and management philosophy; and

There is no Graduate Record Examinations (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 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 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 Science in cyber and homeland security program. In assessing requests for transfer credits, the M.S. in cyber and homeland security faculty may require students to complete additional course work to update knowledge and skills to meet master's degree requirements.

**A. Required Courses**

All students enrolled in the M.S. in cyber and homeland security program must complete the following:

- CHSA7601 Homeland Security and Constitutional Issues
- CHSA7602 Research and Policy Analysis
- CHSA7603 Weapons of Mass Destruction/Terrorism Awareness
- CHSA7604 Strategic Planning, Implementation and Evaluation (capstone and thesis)

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 (CHSA7601 Homeland Security and Constitutional Issues; CHSA7602 Research and Policy Analysis; CHSA7603 Weapons of Mass Destruction/Terrorism Awareness; and CHSA7604 Strategic Planning, Implementation and Evaluation, the capstone course) are M.S. in cyber and 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 cyber and 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.

**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)**
- CHSA6601 Terrorism Issues and Implications
- CHSA6602 Computer and Network Security
- CHSA6603 Cyber Forensics Issues and Impacts
- CHSA6604 Assessing Internal and External Threats
- CHSA6605 Preparing for Catastrophic Emergencies
- CHSA6606 Historical Perspectives of Terrorism
- CHSA6607 Border Security: Policies, Actions and Implications
- CHSA6608 Terrorism and Disaster Management
- CHSA6609 The Face of Terror
- CHSA6610 Bio-terrorism Preparedness and Response

- **Homeland Security — Emergency Management (any six courses)**
- CHSA6611 Emergency Management
- CHSA6612 GIS in Emergency Management
- CHSA6613 Organizational Planning for Emergency Situations
- CHSA6614 Effective Risk Analysis
- CHSA6615 Managing Responses to Environmental Emergencies
- CHSA6616 Stress Awareness and Management
- CHSA6617 Sociological Effects of Disasters
- CHSA6618 Emergency Management Policies, Analysis and Implications

- **Homeland Security Leadership (any six courses)**
- CHSA6619 Collaborative Leadership
- CHSA6620 Organizational Leadership
- CHSA6621 Human Resource Management
- CHSA6622 Effective Team Building
- CHSA6623 Implementing Organizational Change
- CHSA6624 Effective Decision Making for Organizations
- CHSA6625 Organizational Communication
CHSA6626 Resolving Conflict in Organizations
CHSA6627 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

CHSA7601 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.

CHSA7602 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.

CHSA7603 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.

CHSA7604 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

CHSA6601 Cyber and Homeland Security Administration

This 18-credit, six-course certificate focuses on cyber and homeland security administration. 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.

CHSA6602 Cyber Forensics Issues and Impacts

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.

CHSA6603 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.
CHSA6604
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.

CHSA6605
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.

CHSA6606
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.

CHSA6607
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.

CHSA6608
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.

CHSA6609
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 nonstate-supported, as well as methods for dealing with the separate groups.

CHSA6610
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.

CHSA6611
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.

CHSA6612
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.

CHSA6613
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.

CHSA6614
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.

CHSA6615
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.

CHSA6616
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.

CHSA6617
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.

CHSA6618
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.

CHSA6619
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.

CHSA6620
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.
Cybersecurity and Information Assurance

CHSA6621
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.

CHSA6622
3 Credits
Effective Team Building
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.

CHSA6623
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.

CHSA6624
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.

CHSA6625
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.

CHSA6626
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.

CHSA6627
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.

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
Cybersecurity and Information Assurance

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, 3 credits of a Master’s project and 12 credits of electives, beyond any required prerequisites. In consultation with an academic adviser, students can choose four courses (12 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 one more course (3 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 (12 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</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional prerequisite courses may be required if the students did not graduate from a Science, Technology, Engineering Mathematics (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>

Project (3 credits)
Students are required to work on a capstone project through CSCI6807
Cybersecurity and Information Assurance Graduate Capstone Project

Electives (12 credits)
Students are encouraged to take three courses (9 credits) from one of the following two focus areas and one more course (3 credits) from the list of approved electives as provided below. Alternatively, students can also take any four courses (12 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>CSCI6820</td>
<td>Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6836</td>
<td>Computer Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6880</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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<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>
<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>
<tr>
<td>CSCI7783</td>
<td>Information Security</td>
<td>3</td>
</tr>
<tr>
<td>CSCI7870</td>
<td>Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>CSCI8891</td>
<td>Internship/Work Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions


Education

Education for Certified Teachers (M.A.)

See this page.

Educational Leadership (M.A.)

See page 132.

Learning Disabilities (M.A.)

See page 133.

Mathematical Foundations (M.A.)

See page 136.

Teaching (M.A.T.)

See page 137.

Teaching English as a Second/Foreign Language TESL/TEFL (M.A.)

See page 140.

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.

At times, the New Jersey State Department of Education regulations change. Students are advised to check the New Jersey State Department of Education website http://www.state.nj.us/education/ for current requirements.

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 through the M.A.T. program (see page 137). Already certified teachers may continue their professional development through one of several master's degree programs. 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 certified 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 certificate, 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 50-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 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.

- **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 Sammartino 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 100 percent on the HEOA-Title II Reporting for the 2017–2018 academic year. The corresponding statewide pass rate for the same period was 97 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 online 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 prematriculated 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 or Certificate of Eligibility with Advanced Standing (CEAS).
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>3</td>
</tr>
<tr>
<td>EDUC6702</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6705</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6704</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6718</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7674</td>
<td>3</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.

*These four courses lead to a New Jersey Supervisor License.*
Fairleigh Dickinson University’s Bilingual/Bicultural Education Certification Program was developed as a 12-credit concentration covering the essential topics of applied linguistics, language acquisition, biliteracy development, pedagogical theory and teaching methods of content areas in bilingual/bicultural settings. The Bilingual/Bicultural Education teacher certification is not a stand-alone endorsement but must be paired with a standard co-certification in the subject or grade level to be taught.

Bilingual/Bicultural Education Specialist Certificate Program Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6550 Methodology in Bilingual/Bicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6531 Language Acquisition in Bilingual/Bicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574 Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6654 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; and
- a concentration on curriculum development and authentic assessment practices aligned with WIDA and TESOL 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 and the desired second language for bilingual certification. Candidates may meet this requirement by taking the Oral Proficiency Interview (OPI) and Writing Proficiency Test (WPT) in both English and their second language of choice.

Required Courses for a Second New Jersey Certification in ESL (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6565 Second Language Acquisition:</td>
<td></td>
</tr>
<tr>
<td>Methods and Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6574 Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6584 Computers as a Teacher’s Aid:</td>
<td></td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6631 Assessment in the Second-language Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6654 Literacy Development for</td>
<td></td>
</tr>
<tr>
<td>Second-language Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6661 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 or may apply these credits to the 36-credit M.A. in education for certified teachers program.

ITSC candidates learn to:
- 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</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6584 Computers as a Teacher’s Aid:</td>
<td></td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6673 Integrating Literacy and Technology Across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7784 Multimedia Production</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7785 Internet for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7790 Seminar in Instructional Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7796 Projects Based on the Web</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7798 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 district 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 supervisor License.

For individuals who wish to obtain a New Jersey Supervisor License, the candidate with three years of successful teaching may select the four courses leading to a New Jersey Supervisor License.

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

*Course leads to a New Jersey Supervisor License — 12 credits with a master’s degree and three years of teaching.

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 FDU Literacy/Reading Certificate (18 credits)

EDUC6582
Distance Learning: Children’s Literature.................................3
EDUC6605
Foundations in Reading I..................................................3
EDUC6606
Foundations in Reading II.................................................3
EDUC6673
Supervised Practicum in Correction of Reading Problems........3
EDUC6674
Integrating Literacy and Technology Across the Curriculum........3

Courses for Orton-Gillingham Dyslexia Specialist Certificate (12 credits)

EDUC6601
Multisensory Reading I....................................................3
EDUC6602
Multisensory Reading II...................................................3
EDUC6703
Multisensory Reading III..................................................3

Courses for Master of Arts in Education (6 credits)

EDUC6609
Supervised Practicum in Reading........................................3
EDUC674
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>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>EDUC684</td>
<td>Computers as a Teacher’s Aid: Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6669</td>
<td>Advanced Field Placement</td>
<td>3</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>
<tr>
<td>EDUC7674</td>
<td>Master’s Seminar: Research in Specialization (required course)</td>
<td>3</td>
</tr>
</tbody>
</table>

*Courses provided off-site by the New Jersey State Provisional Training Program.

**Supervisor License Option (Some or all of 12 credits below)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6702</td>
<td>Curriculum and Instruction: Theory and Practice**</td>
<td>3</td>
</tr>
<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>EDUC6718</td>
<td>Curriculum/Program Evaluation and Student Assessment**</td>
<td>3</td>
</tr>
</tbody>
</table>

**Alternative Options to 12 credits for Supervisor License**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EDUC6661</td>
<td>The Multicultural Classroom</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>EDUC7763</td>
<td>Human Relations and Conflict Resolution for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7785</td>
<td>Internet for Educators</td>
<td>3</td>
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</tbody>
</table>

**Course Options for Generalist Educational Program (18 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6582</td>
<td>Distance Learning: Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6605</td>
<td>Foundations in Reading I</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6606</td>
<td>Foundations in Reading II</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6673</td>
<td>Integrating Literacy and Technology Across the Curriculum</td>
<td>3</td>
</tr>
</tbody>
</table>

**Teacher of Students with Disabilities Options without Certificate or State Endorsement**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>EDUC6745</td>
<td>Principles and Practices of Collaboration and Inclusion</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6746</td>
<td>Learning Environment and Effective Management of Teaching and Learning</td>
<td>3</td>
</tr>
</tbody>
</table>

**English as a Second Language Options without Certificate or State Endorsement**

<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>EDUC6747</td>
<td>Applied Linguistics for Language Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6631</td>
<td>Assessment in the Second-language Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

**Instructional Technology Options without FDU Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>EDUC7796</td>
<td>Projects Based on the Web</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics Specialist Options without FDU Certificate**

<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>MATH6513</td>
<td>World of Mathematics: Mathematics in Science</td>
<td>3</td>
</tr>
</tbody>
</table>

*Courses for Supervisor License — 12 credits, master's degree plus three years of teaching.

**Other courses may be substituted after approval of adviser.
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 — 30 Credits, Plus Two Years Teaching and Master’s Degree 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
EDUC6703 Supervision of Instruction: Personnel and Evaluation*..........3
EDUC6718 Curriculum/Program Evaluation and Student Assessment*........3
EDUC7674 Master’s Seminar: Research in Specialization (Literacy/Reading).................................3

English as a Second Language — 18 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
EDUC6631 Assessment in the Second-language Classroom..................3

Teacher of Students with Disabilities — 21 credits
EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders.................................3
EDUC6744 Foundations: Historical, Philosophical and Legal Issues Related to Disabilities........................................3
EDUC6745 Principles and Practices of Collaboration and Inclusion*........3
EDUC6746 Learning Environment and Effective Management of Teaching and Learning*....................................3
EDUC6747 Multisensory Reading Instruction for Students with Reading Disabilities................................................3
EDUC7623 Diagnosis of Learning Disabilities.................................3
EDUC7624 Correction of Learning Disabilities...............................3

Teacher of Students with Disabilities (TSD) Certification (Nondegree Program)
This is a nondegree program for certified, general-education classroom teachers who seek to develop expertise in working with students with exceptionalities in grades K—12. Candidates who successfully complete this program will be eligible for New Jersey Department of Education certification as Teacher of Students with Disabilities. This license is required for teaching students with disabilities in settings such as inclusive classrooms, resource centers and self-contained classrooms.

M.A. Core Courses (15 credits)
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
EDUC7674 Master’s Seminar: Research in Specialization*...................3

Course Descriptions

*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 for EDUC7623 Diagnosis of Learning Disabilities and EDUC7624 Correction of Learning Disabilities.
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 four and a half year 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, parent, 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.

At times, the New Jersey State Department of Education regulations change. Students are advised to check the New Jersey State Department of Education website http://www.state.nj.us/education/ for current requirements.

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, Metropolitan Campus, Teaneck, New Jersey. The program is available at the Florham Campus, Madison, New Jersey; the Metropolitan Campus; and satellite campus locations.

**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 3.00. Students who have not maintained a 3.00 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.

5) Students must maintain a 3.00 CGPR to graduate from the program.

**Requirements for the Master of Arts Degree**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6701 Leadership in Learning Community and School</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6702 Curriculum and Instruction: Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6703 Supervision of Instruction: Personnel and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6704 Change: Curriculum Development and Program Improvement</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6706 Advanced Leadership Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6716 School Finance, Facilities and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6717 School Law</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6718 Curriculum/Program Evaluation and Student Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6720 Educational Leadership Field-based Internship Seminar I</td>
<td>3 - 6</td>
</tr>
<tr>
<td>EDUC6721 Educational Leadership Field-based Internship Seminar II</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6722 Educational Leadership Field-based Internship Seminar III</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6723 Final Project: School-based Research</td>
<td>3</td>
</tr>
</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.
### Requirements (30 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6701</td>
<td>Leadership in Learning Community and School*</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6702</td>
<td>Curriculum and Instruction: Theory and Practice</td>
<td>3</td>
</tr>
<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>Advanced Leadership Seminar*</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>EDUC6720</td>
<td>Educational Leadership Field-based Internship Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6721</td>
<td>Educational Leadership Field-based Internship Seminar II</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6722</td>
<td>Educational Leadership Field-based Internship Seminar III</td>
<td>3</td>
</tr>
</tbody>
</table>

### Course Offerings


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### 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 this page.
- Teacher of Students with Disabilities Certification, see page 134.
- Master of Arts in Learning Disabilities/Teacher of Students with Disabilities Teacher Consultant Certification, see page 134.
- Learning Disabilities Teacher Consultant Certification, see page 133.
- Dyslexia Specialist Certificate and other Orton-Gillingham certificate programs, see pages 135–136.

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 from an accredited college or university 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 134).

### Requirements

#### Basic Core (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6627</td>
<td>Orientation to School Testing</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>EDUC6746</td>
<td>Learning Environment and Effective Management of Teaching and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6792</td>
<td>Assistive Technology for the Inclusive Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Core......12

#### Specialization (15 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6744</td>
<td>Foundations: Historical, Philosophical and Legal Issues Related to Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6745</td>
<td>Principles and Practices of Collaboration and Inclusion</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6747</td>
<td>Multisensory Reading Instruction for Students with Reading Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUC7625</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>
</tbody>
</table>

*Students may substitute EDUC6706 Advanced Leadership Seminar for EDUC6701 Leadership in Learning Community and School.

*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.

*EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.
Electives (9 credits)  Credits
EDUC6694  Introduction to Autism  Spectrum Disorders.........................3
EDUC6793  Education of Students with  Moderate to Severe Disabilities.......3
EDUC6797  Multisensory Mathematics  Instruction for Students with  Disabilities..............................................3

One-credit Electives (2 credits)
EDUC6612  Reading Comprehension  EDUC6614  Multisensory Mathematics  Skills
EDUC6617  Study Skills  EDUC6660  Diagnosing Mathematics  Disabilities and Strategies for Remediation
EDUC6668  Understanding Asperger Syndrome  EDUC6715  Updating LDTC Diagnostic Skills
EDUC6737  Phonemic Awareness  EDUC6845  Understanding IQ Testing

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 for serving in the LDTC capacity on a Child Study Team.

Requirements
Basic Core (15 credits)
EDUC6626  Neurophysiological Basis of Learning Problems.........................3
EDUC6627  Orientation to School Testing..............................................3
EDUC6740  Introduction to Students with Disabilities and Autism Spectrum Disorders..............................................3
EDUC6746  Learning Environment and Effective Management of Teaching and Learning*..............................................3
EDUC6747  Multisensory Reading Instruction for Students with Reading Disabilities..............................................3

Total......15

Specialization (9 credits)  Credits
EDUC6745  Principles and Practices of Collaboration and Inclusion*...........3
EDUC7623  Diagnosis of Learning Disabilities.................................3
EDUC7624  Correction of Learning Disabilities.................................3
EDUC8623  Practicum in Diagnostic and Remedial Techniques I*...........3
EDUC8628  Practicum in Diagnostic and Remedial Techniques II*............3
Clinical Practicum............................2
Total......17

Electives (6 credits)
Electives to be chosen from the courses below:
EDUC6660  Diagnostic Mathematics  Disabilities and Strategies for Remediation....................1
EDUC6668  Understanding Asperger Syndrome..............1
EDUC6694  Introduction to Autism Spectrum Disorders.........................3
EDUC6792  Assistive Technology for the Inclusive Classroom................3
EDUC6795  Education of Students with Moderate to Severe Disabilities........3
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.

*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 EDUC6725 Diagnosis of Learning Disabilities and EDUC6724 Correction of Learning Disabilities is required for admission to EDUC8625 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.
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 (IMSLEC) 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 Credits
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.
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 but may be required for New Jersey State certification.

Course Descriptions

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 teacher certification programs in:

• Preschool to grade 3, see page 138;
• Elementary education (grades K–6), see page 138;
• Secondary education content area (grades K–12) in English, social studies, mathematics, art, biological sciences, chemistry, physics, earth science, physical science, see page 138.

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 139), 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) 443-8385

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
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>
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</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>
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<tbody>
<tr>
<td>EDUC6562</td>
<td>Standards-based Curriculum and Methodology: Secondary English</td>
<td></td>
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<tr>
<td>EDUC6563</td>
<td>Standards-based Curriculum and Methodology: World Languages</td>
<td></td>
</tr>
<tr>
<td>EDUC6566</td>
<td>Standards-based Curriculum and Methodology: Secondary Social Studies</td>
<td></td>
</tr>
<tr>
<td>EDUC6568</td>
<td>Standards-based Curriculum and Methodology: Secondary Science</td>
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</tr>
<tr>
<td>EDUC6569</td>
<td>Standards-based Curriculum and Methodology: Visual Arts</td>
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Total Credits Required for Graduation: 36

Education Electives/Courses in Discipline (6 credits)

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<tbody>
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<td>Computers as a Teacher's Aid: Curriculum and Instruction</td>
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<td>EDUC6819</td>
<td>Language Development and Literacy II</td>
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</tr>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
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</table>

Total Credits Required for Graduation: 36

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Elementary Education
Required Courses for Certification

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<tr>
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<tbody>
<tr>
<td>EDUC6575</td>
<td>Apprenticeship Teaching</td>
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<tr>
<td>EDUC6818</td>
<td>Language Development and Literacy I</td>
<td>3</td>
</tr>
<tr>
<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>
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Total Credits: 36

Additional Required Courses for Completion of M.A.T.

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Total Credits: 36

Education Electives/Courses in Discipline (6 credits)

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<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>2–3</td>
</tr>
</tbody>
</table>

Total Credits: 36

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.

*Starting in fall 2018, the minimum required credits for initial certification will increase with the addition of EDUC6585 Advanced Clinical Practice (2 credits) and EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders (5 credits). All candidates will be required to pass the edTPA to obtain certification.

**EDUC6884 Child and Adolescent Development may be substituted for EDUC6851 Child Development from Birth to Age 8.
English as a Second Language

Required Courses for Certification*

EDUC6565
Second Language Acquisition: Methods and Curriculum..............3
EDUC6574
Applied Linguistics for Language Teachers........................3
EDUC6575
Apprenticeship Teaching...................................................6
EDUC6584
Computers as a Teacher’s Aid: Curriculum and Instruction........3
EDUC6585
Assessment in the Second-language Classroom........................3
EDUC6583
Literacy Development for Second-language Learners...............3
EDUC6661
The Multicultural Classroom...............................................3
EDUC6582
Teaching Laboratory and Field Experience I..........................1
EDUC6585
Apprenticeship Teaching Seminar.................................2
EDUC6582
Teaching Laboratory and Field Experience II........................1
EDUC6585
Effective Teaching and Effective Schools.............................3
Total........31

Additional Required Courses for Completion of M.A.T.

EDUC7812
Final Project.................................................................2
Total........2

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 for subject-specific certification (secondary education) must have obtained a 30-credit concentration in the area of certification.
4. Applicants for 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.
9. The New Jersey Department of Education requires a demonstration of oral and written language proficiency in English and the desired second language for bilingual certification. Candidates may meet this requirement by taking the Oral Proficiency Interview (OPI) and Writing Proficiency Test (WPT) in both English and their second language of choice.

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)

Apprenticeship Model

EDUC6565
Second Language Acquisition: Methods and Curriculum........3
EDUC6574
Applied Linguistics for Language Teachers.........................3
EDUC6575
Apprenticeship Teaching..................................................6
EDUC6583
Advanced Clinical Practice..............................................2
EDUC6584
Computers as a Teacher’s Aid: Curriculum and Instruction......3
EDUC6661
Assessment in the Second-language Classroom..................3
EDUC6584
Literacy Development for Second-language Learners........3
EDUC6824
Teaching Laboratory and Field Experience I.........................1
EDUC6585
Apprenticeship Teaching Seminar.................................2
EDUC6582
Teaching Laboratory and Field Experience II.....................1
EDUC6585
Effective Teaching and Effective Schools........................3

*Starting in fall 2018, the minimum required credits for initial certification will increase with the addition of EDUC6585 Advanced Clinical Practice (2 credits) and EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders (5 credits). All candidates will be required to pass the edTPA to obtain certification.
Education • Teaching English as a Second/Foreign Language

Course Required for Graduation (3 credits)

EDUC7812
Final Project ........................................... 3

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


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.

*EDUC6740 Introduction to Students with Learning Disabilities and Autistic Spectrum Disorders is a prerequisite for all courses.
**EDUC6745 Principles and Practices of Collaboration and Inclusion and EDUC6746 Learning Environment and Effective Management of Teaching and Learning are prerequisites.
***EDUC7812 Final Project is required to complete the 45-credit M.A.T./Teacher of Students with Disabilities certification program.

*U.S. citizens and legal residents.
**Domestic Students**

1. A bachelor’s degree from an accredited college or university.
2. Two letters of recommendation.

**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)**

<table>
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<tr>
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<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>EDUC6635</td>
<td>Clinical Practice in Language Instruction</td>
<td>4</td>
</tr>
<tr>
<td>EDUC6650</td>
<td>Behavioral Science for Teachers: Language and Culture in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC6649</td>
<td>Introduction to United States Culture...</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>
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**Approved Electives (9 credits)**

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</thead>
<tbody>
<tr>
<td>EDUC7812</td>
<td>Final Project</td>
<td>2</td>
</tr>
</tbody>
</table>

**Final Requirement (2 credits)**

EDUC7812

Final Project

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)**

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<td>The Multicultural Classroom</td>
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</tbody>
</table>

**Course Descriptions**


**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

EDUC5001

0 Credits

**Health and Hygiene Exam**

This health and hygiene exam is given to graduate students prior to their first teacher certification to fulfill the health/hygiene/nutrition requirement for teacher certification. Required only of candidates who do not have a biology/health/nutrition class on their transcript. Must have adviser’s approval. Pass/fail grading.

**EDUC5720**

0 Credits

**Field-based Internship Seminar I**

EDUC5720 is the first of a three-course sequence for the field-based internship and a companion course to EDUC6720 Field-based Internship Seminar I. The field-based internship provides individual candidates with the opportunity to apply, over the course of a complete year and under the guidance of a certified school administrator, the theoretical knowledge and skills acquired during graduate study to an educational/institutional setting. This approach relies on a strong conceptual base of knowledge and understanding of professional practices. The shared resources of the field settings will enable students to participate in a closely supervised experience involving the intern, cooperating administrator and course professor. Prerequisites: EDUC6701 Leadership in Learning Community and School, EDUC6702 Curriculum and Instruction: Theory and Practice, EDUC6703 Supervision of Instruction: Personnel and Evaluation, EDUC6704 Change: Curriculum Development and Program Improvement and EDUC6718 Curriculum/Program Evaluation and Student Assessment. Corequisite: EDUC6720 Field-based Internship Seminar I.

EDUC5720

0 Credits

**Field-based Internship Seminar II**

EDUC5721 is the second of a three-course sequence that attempts to integrate into a structured practicum or internship experience the various theories, concepts, dispositions, standards and understandings introduced and developed in the student’s formal course work. As such, this course addresses all 10 of the PSEL Standards. EDUC5721 is the field-based internship and a companion course to EDUC6721 Educational Leadership Field-Based Internship Seminar II. The field-based internship provides individual candidates with the
opportunity to apply, over the course of a complete year and under the guidance of a certified school administrator, the theoretical knowledge and skills acquired during graduate study to an educational/institutional setting. Prerequisite: EDUC5720 Field-based Internship Seminar I. Corequisite: EDUC6721 Educational Leadership Field-based Internship Seminar II.

EDUC5722 0 Credits
Field-based Internship Seminar III
EDUC5722 is the third of a three-course sequence that attempts to integrate into a structured practicum or internship experience the various theories, concepts, dispositions, standards and understandings introduced and developed in the student’s formal course work. As such, this course addresses all 10 of the PSEL Standards. EDUC5722 is the field-based internship and a companion course to EDUC6722 Educational Leadership Field-Based Internship Seminar III. The field-based internship provides individual candidates with the opportunity to apply, over the course of a complete year and under the guidance of a certified school administrator, the theoretical knowledge and skills acquired during graduate study to an educational/institutional setting. Prerequisite: EDUC5721 Field-based Internship Seminar II. Corequisite: EDUC6722 Educational Leadership Field-Based Internship Seminar III.

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.

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 1–2 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.
EDUC6572
1–2 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.

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 methodologies and implications 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 foci 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 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
Discourse Analysis for Language Teachers
This course surveys the applications of discourse analysis to the field of education. Students are apprenticed into the concepts and techniques of discourse analysis through a combination of assigned readings, in-class discussions and practical-application assignments. The course is designed primarily with current and future language educators in mind but is of value to all education-related fields.

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.
### Education • Course Offerings

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC6502</td>
<td>1 Credit</td>
<td>Cloud Computing and Social Media</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6600</td>
<td>3 Credits</td>
<td>Technology in the Science Classroom</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6601</td>
<td>3 Credits</td>
<td>Multisensory Reading I</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6602</td>
<td>3 Credits</td>
<td>Multisensory Reading II</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6605</td>
<td>1 Credit</td>
<td>Foundations in Reading I</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6606</td>
<td>3 Credits</td>
<td>Foundations in Reading II</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6607</td>
<td>3 Credits</td>
<td>Diagnosis of Reading Problems</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6608</td>
<td>3 Credits</td>
<td>Correction of Reading Problems</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6609</td>
<td>3 Credits</td>
<td>Supervised Practicum in Reading</td>
<td>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 EDUC6606 Supervised Practicum in Correction of Reading Problems.</td>
</tr>
<tr>
<td>EDUC6610</td>
<td>1 Credit</td>
<td>History of Multisensory Instructional Methods for Students with Learning Disabilities/Dyslexia</td>
<td>A historical perspective of multisensory teaching techniques in the areas of reading, spelling and writing. Various curricula are compared and contrasted.</td>
</tr>
<tr>
<td>EDUC6611</td>
<td>1 Credit</td>
<td>Advanced Language Structure</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6612</td>
<td>1 Credit</td>
<td>Reading Comprehension</td>
<td>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. Prerequisite: EDUC6601 Multisensory Reading I.</td>
</tr>
<tr>
<td>EDUC6613</td>
<td>1 Credit</td>
<td>Written Expression</td>
<td>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. Prerequisite: EDUC6601 Multisensory Reading I.</td>
</tr>
<tr>
<td>EDUC6614</td>
<td>1 Credit</td>
<td>Multisensory Mathematics Skills</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6615</td>
<td>1 Credit</td>
<td>Language Acquisition and Language Disorders</td>
<td>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.</td>
</tr>
<tr>
<td>EDUC6616</td>
<td>1 Credit</td>
<td>Study Skills</td>
<td>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.</td>
</tr>
</tbody>
</table>
| EDUC6617 | 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
5 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.

EDUC6651
5 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.

EDUC6656
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.
Education • Course Offerings

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 difficulty 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 nonverbal 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  
5 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 Core 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 schoolwide 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 (NJPSSSL). 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: EDUC6725 Diagnosis of Learning Disabilities and EDUC6724 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 produces 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  
3 Credits  
*Educational Leadership Field-based Internship Seminar 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. Corequisite: EDUC5720 Field-based Internship I.

EDUC6721  
3 Credits  
*Educational Leadership Field-based Internship Seminar 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. Corequisite: EDUC5721 Field-based Internship Seminar II.

EDUC6722
3 Credits
**Educational Leadership Field-based Internship Seminar 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 Seminar I and EDUC6721 Educational Leadership Field-based Internship Seminar II. Corequisite: EDUC5722 Field-based Internship Seminar II.

EDUC6723
2 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.

EDUC6756
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 effect 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 modifications 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. Prerequisite: EDUC6740 Introduction to Students with Learning Disabilities and Autistic Spectrum Disorders.

EDUC6746
3 Credits
**Learning Environment and Effective Management of Teaching and Learning**
Education • Course Offerings

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.

EDUC6795
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.

EDUC6797
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.

EDUC6798
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
Seminars 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 disabilities and remediation in basic school subjects. Each credit hour represents 30 hours of fieldwork.

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
3 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.

EDUC6895
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. While 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.

EDUC6916
3 Credits
Foundations of Modern America: African-Americans
The course briefly reviews the post-Civil War to pre-civil-rights-era history of African-Americans, with a particular focus on education; examines the goals, achievements and legacies of the modern civil rights movement; and evaluates progress and changes in African-American social, political and economic status during the last quarter of the 20th century. By applying critical thinking skills to competing views of historical and current events, students explore the impact and meaning of these developments for African-American students and their teachers.

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: EDUC6741 Clinical Teaching Internship and Seminar I and EDUC6572 Clinical Teaching Internship and Seminar II.

EDUC6923  
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. 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.

EDUC7603  
3 Credits  
**Multisensory Reading III**  
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 also are included. Prerequisite: B+ or better grade in the clinical component of EDUC6602 Multisensory Reading II.  
*Fall, Spring, Summer*

EDUC7604  
3 Credits  
**Multisensory Reading IV**  
Continuation of training in the Orton-Gillingham techniques taught in EDUC7603 Multisensory Reading III, with continued study of upper-level language skills. Consists of lecture, supervised practicum, group seminars and individual conference between teacher and supervisor, as described in EDUC7603 Multisensory Reading III. Prerequisite: B+ or better grade in the clinical component of EDUC7603 Multisensory Reading III.  
*Fall, Spring, Summer*

EDUC7620  
1–2 Credits  
**Diagnosis of Dyslexia**  
Advanced study of diagnosis of individuals with dyslexia. Integrates current research, theory and assessment approach. Prerequisite: New Jersey Learning Disabilities Teacher Consultant (LDTC) Certification or equivalent.

EDUC7623  
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 EDUC6745 Introduction to Students with Disabilities in School and Community and Autistic Spectrum Disorders and EDUC6745 Principles and Practices of Collaboration and Inclusion or EDUC6746 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 EDUC6746 Learning Environment and Effective Management of Teaching and Learning.

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.

EDUC7763
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: EDUC7785 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: EDUC6584 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.

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
1–5 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.

EDUC 7813 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.

EDUC 8609 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: EDUC 7604 Multisensory Reading IV.

EDUC 8610 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 EDUC 7603 Multisensory Reading III and EDUC 7604 Multisensory Reading IV. Includes supervision in providing instruction and feedback to individuals in training. Prerequisite: EDUC 8609 Multisensory Reading V.

EDUC 8612 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: EDUC 7604 Multisensory Reading IV.

EDUC 8613 3 Credits
**Advanced Orton-Gillingham Practicum II**
A continuation of the training provided in EDUC 8612 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.

EDUC 8614 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: EDUC 8612 Advanced Orton-Gillingham Practicum I and EDUC 8613 Advanced Orton-Gillingham Practicum II.

EDUC 8623 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 EDUC 7623 Diagnosis of Learning Disabilities and in EDUC 7624 Correction of Learning Disabilities. Fall.

EDUC 8628 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 EDUC 8623 Practicum in Diagnostic and Remedial Techniques I. Fall or Spring.

**Mathematics**

MATH 6507 3 Credits
**World of Mathematics: Number**
Investigations of numbers utilizing a physical modeling, problem-solving approach to show its development and use.

MATH 6508 3 Credits
**World of Mathematics: Algebra**
An investigation of algebra through a hands-on, process-oriented, problem-solving approach.

MATH 6509 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.
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</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EENG6633</td>
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<td>EENG6747</td>
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<tr>
<td>EENG7701</td>
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<td>EENG7709</td>
<td>3</td>
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<tr>
<td>EENG7725</td>
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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</th>
<th>Credits</th>
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<td>EENG6629</td>
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## Electrical Engineering

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EENG7738</td>
<td>Wireless Communication</td>
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<tr>
<td>EENG7748</td>
<td>Advanced Digital Communications</td>
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</tr>
<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>EENG77852</td>
<td>Digital Signal Processing with C and DSP Processors</td>
<td>3</td>
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### 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).

### 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EENG6601</td>
<td>Linear Systems I</td>
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<tr>
<td>EENG6602</td>
<td>Linear Systems II</td>
<td>3</td>
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<tr>
<td>EENG6606</td>
<td>Electromagnetic Radiation and Transmission</td>
<td>3</td>
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<tr>
<td>EENG6610</td>
<td>Computer-aided Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>EENG6629</td>
<td>Random Processes in Communications</td>
<td>3</td>
</tr>
<tr>
<td>EENG6633</td>
<td>Digital Signal Processing</td>
<td>3</td>
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</tbody>
</table>

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.

### Digital Communications

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.

### Logic System Design

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.

### Microprocessor Design

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.

### Computer Applications in Engineering

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.

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<tr>
<td>EENG7710</td>
<td>Computer-based Instrumentation</td>
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EENG7706
3 Credits
**Robotics Engineering**
Introduction, robot kinematics, system modeling, control and motion, vision, manufacturing system applications.

EENG7707
3 Credits
**Neural Networks and Fuzzy Logic Systems**
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
3 Credits
**Intuition Processor Application Architecture**
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
3 Credits
**Embedded Systems**
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
6 Credits (3 Credits Each Semester)
**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.

EENG7715
3 Credits
**Integrated Circuit Devices**

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.

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: EENG6633 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  
Optics  

EENG7776  
3 Credits  
Lasers  
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  
Infrared 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 absorptance of light. Light modulation; Kerr, Pockels and Faraday effects. Light sources, display devices and photodetectors. Fiber-optic waveguides and optical communication system. Prerequisites: undergraduate courses in electromagnetic theory, optics and modern physics.

EENG7779  
3 Credits  
Optical Imaging  
A discussion of the principles and techniques needed to design and analyze optical imaging systems. Topics will include paraxial system layout, stops and pupils, geometric and wavefront aberration theory and resolution of imaging system. Computer design exercises will be an integral part of the course. Prerequisite: an optics course or permission of the instructor.

EENG7780  
3 Credits  
Current Topics in Optics  
An in-depth study of one or more current topics of importance in optical research. The problem to be treated will be selected to meet the needs and interest of the class.

EENG7803, EENG7804  
6 Credits (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.

EENG7810, EENG7811  
1–3 Credits Each Semester  
Advanced Special Projects: Electrical Engineering  
Studies in an area of electrical engineering.

EENG7820  
3 Credits  
Electrical Engineering Seminar  
Research in recent developments in electrical engineering. Presentations of seminars by members of the faculty and students.

EENG7830–EENG7870  
1–3 Credits Each Semester  
Special Topics in Electrical Engineering  
Topics of current interest in electrical engineering. Consult the electrical engineering department for details.

EENG7850  
3 Credits  
Adaptive Signal Processing  
Adaptive signal processing, stationary processes and models, spectrum analysis, Wiener filters, Method of Steepest Descent, Least-Mean-Square algorithm, frequency-domain adaptive filters, adaptive FIR filters, adaptive IIR filters, applications. Prerequisite: EENG6633 Digital Signal Processing or permission of the instructor.

EENG7851  
3 Credits  
Multirate Systems and Filter Banks  
Discrete-time systems, digital filters, multirate systems, maximally decimated filter banks, paraunitary perfect reconstruction filter banks, linear phase reconstruction QMF banks, cosine modulated filter banks, Wavelet transform and its relation to multirate filter bank, applications. Prerequisite: EENG6633 Digital Signal Processing or permission of the instructor.

EENG8891  
1–3 Credits  
Internship/Work Experience  
Provides on-the-job education and training in the concepts presented in the graduate electrical engineering curriculum. 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 student’s adviser to confirm the quality of the work experience. A report at the conclusion of the working experience is required, detailing the educational and training aspects of the job. Prerequisite: completion of 18 graduate electrical engineering credits.  

Fall, Spring, Summer
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 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.

Electronic Commerce (M.S.)

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:

- ACCT5012 Financial Accounting: End-User Applications
- CSCI5505 Introduction to Computer Programming
- CSCI5525 Introduction to Computer Science
- ECON5012 Economic Analysis
- MKTG5012 Marketing Principles

Required Courses (18 credits)

- CSCI6623 Database Systems
- CSCI6720 Management Information Systems
- CSCI6731 Computer Networks
- CSCI6758 Electronic Commerce
- CSCI6844 Programming for the Internet
- CSCI7795 Building Electronic Commerce Systems

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.

- CSCI6638 Operating Systems
- CSCI6732 Local Area Networks
- CSCI6810 Java and the Internet
- CSCI6820 J2EE Programming
- CSCI6882 Data Warehouse and Data Mining
- CSCI7727 Development of MIS 1: Project Management and Systems Analysis
- CSCI7781 Advanced Database Systems
- CSCI7791 Information Systems for Competitive Advantage

E-commerce Certificate

The certificate program in electronic commerce provides individuals with expertise in both the business and technological sides of e-commerce: doing business on the Internet. The program participants will learn successful market structures and business models, as well as internet programming on the client and the server sides.

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 E-commerce

18 credits (six courses) are to be chosen from the following:

- CSCI5505 Introduction to Computer Programming
- CSCI5525 Introduction to Computer Science
- CSCI6735 Client-server Computing
- CSCI6758 Electronic Commerce
English for Professional Success

Courses offered fall, spring, summer and/or winter are so noted. To determine availability of courses not so designated, please check with the unit.

**Course Offerings**

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<td>English for Occupational Purposes; English for Academic Purposes (required)</td>
<td>6</td>
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<tr>
<td>EPS5109</td>
<td>English for Professional Success: Global Exchange — New York City as a Classroom (optional for non-Pre-master's Program students)</td>
<td>3</td>
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<tr>
<td>EPS5201</td>
<td>Advanced English for Occupational Purposes (optional)</td>
<td>3</td>
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<tr>
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<td>Advanced English for Academic Purposes (optional)</td>
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**Course Description**


**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 for 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.

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**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 for 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.

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**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.

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**Course Offerings**

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**English for Professional Success**

Programs in Language, Culture and Professional Advancement

**EPS5008**

4.5 Credits

Contact hours 6

**Academic Writing Skills**

Non-native English-speaking students will be exposed to more subtle attitudes of a speaker or writer in different genres. They will recognize the difference between fact and opinion. Students will be able to write argumentatively and to read their own work objectively for editing. Students will demonstrate an

EPS5018
1.5 Credits
Contact hours 3
Academic Communication Skills
A corequisite lab for EPS5008 Academic Writing Skills where students engage in critical reading and thinking, as well as speaking activities. Class activities may include academic debates and persuasive presentations. Corequisite: EPS5008 Academic Writing Skills.

EPS5109
3 Credits
Contact hours 2.5
English for Occupational Purposes
Non-native English-speaking students will focus on English proficiency for occupational purposes. Students will develop their skills in professional writing, oral communication, research and information literacy, group collaboration and cross-cultural competencies. Corequisite: EPS5119 English for Academic Purposes.

EPS5119
0 Credits
Contact hours 1.5
English for Academic Purposes
A corequisite lab for EPS5109 English for Occupational Purposes, where students will focus on English proficiency for academic purposes. Students will develop their skills in academic research and writing, and proficiency with APA and/or MLA format. Corequisite: EPS5109 English for Occupational Purposes.

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) Experiential learning fees

Executive Programs

The University offers programs designed for executives in a specific field.

Management (M.B.A.) for Executives — General Management
See page 73.

Management (M.B.A.) for Executives — Health Sector Management
See page 74.
Film (M.F.A.)

The low-residency Master of Fine Arts (M.F.A.) in film offers studies in five concentrations: screenwriting, producing, directing, cinematography and editing.

Workshops led by professionals, visits with guest artists and internships are built into the program. Situated near New York City and in the heart of a vibrant media market, FDU’s M.F.A. in film will allow students to hone their skills and be well prepared to obtain work in the field.

FDU’s low-residency approach to the M.F.A. in film embraces distance learning as a primary method of delivering the curriculum. The student will alternate two 8- to 9-day residencies per year, with semesters spent in online learning. The program features four residencies and four terms over a two-year period.

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

Admissions Requirements

Applicants holding undergraduate degrees from an accredited four-year institution in the United States or abroad may apply. They should have a cumulative grade point ratio (GPR) of 2.75 or better on a 4.00 scale. An undergraduate degree in film, communication, writing or theater is advised but not required. Applicants who have shown significant talent or professional experience in other art forms will also be given serious consideration. Prior technical experience in film is not required.

Applicants must submit a portfolio of their work. In admissions decisions, the greatest weight will be given to the portfolio. The portfolio can consist of live-action film material, screenplays or other written narrative work. Work from other disciplines can be submitted; be it animation, playwriting, photography, graphic design or fine arts.

All incoming students must begin their first semester of the program by attending a residency and registering for two courses.

Application Deadlines

Fall application deadline: All students must begin the program with a summer residency — the deadline for attending the residency and the fall semester is May 1

Spring application deadline: All students must begin the program with a January residency — the deadline for the residency and the spring semester is November 30

To Apply

1. Complete the FDU Graduate Application online.
   • Choose a concentration: screenwriting, producing, directing, cinematography or editing.
   • Official transcripts should be sent to the Graduate Admissions Office. All undergraduate transcripts are required.
   • GRE scores are not required.
   • The M.F.A. program is housed on the Florham Campus in Madison, New Jersey.
2. Submit a portfolio or a link to a portfolio via email to gradfilm@fdu.edu.
   • Applicants can submit a film work (.mov or QT file), a screenplay, stage play or creative writing document (Use PDF or MS Word format. Be sure to paginate the document and include the applicant’s name on every page). Portfolios may contain live-action film material, screenplays or other written narrative work. Work from other disciplines can be submitted — be it animation, playwriting, photography, graphic design or fine arts.
   • If the portfolio is too large to email, applicants will be directed to the University’s server. Email gradfilm@fdu.edu for details.
3. Letters of recommendation are welcome but not required. They can be sent to the Graduate Admissions Office at grad@fdu.edu.
4. Applicants with a GPR of 3.00 or greater may apply for the University Provost’s Graduate Scholarship.
5. Applicants should complete the Free Application for Federal Student Aid (FAFSA) online for 2019–2020 as soon as possible if they require financial aid. They do not have to accept any funds unless they choose to. Many graduate students are eligible for state and/or federal loans and aid. FDU’s Financial Aid Office at the Florham Campus (973-443-8704) can assist with this.

In making admissions decisions, the greatest weight will be given to the portfolio, screenwriting samples, completed film projects, festival and professional recognition and employer recommendations. Work-related experience will also be taken into consideration. While admission will not require the undergraduate major to have been in a film-related field, creativity demonstrated while an undergraduate or in professional work environments will be considered.

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

Curriculum

The degree takes a minimum of two years to complete. Students have up to five years to finish the program. Four on-campus residencies, eight online courses and a completed thesis are required for the degree. A total of 60 credits are required to graduate.

Below is an example of a two-year program layout for a student beginning with a summer residency and fall online courses:

Year One

First 9-day Residency
(Summer Session) — (5 credits)

Term I
Two 8-week online courses taken consecutively (Fall Semester) — 10 credits (5 credits each)

Second 9-day Residency
(Winter Session) — (5 credits)

Term II
Two 8-week online courses taken consecutively (Spring Semester) — 10 credits (5 credits each)

Year Two

Third 9-day Residency
(Summer Session) — (5 credits)

Term III
Two 8-week online courses taken consecutively (Fall Semester) — 10 credits (5 credits each)

Fourth (and Final) 9-day Residency
(Winter Session) — (5 credits)

Term IV (Final Term)
Two 8-week online courses taken consecutively (Spring Semester) — 10 credits (5 credits each)
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.

FILM 5000
5 Credits
M.F.A. in Film Residency
Nine-day graduate film residency held at FDU’s Florham Campus in Madison, N.J., twice a year during summer and winter sessions. Four residencies are required to complete the degree.

Students take four courses (20 credits) from below — one in each concentration outside of their main concentration

FILM 6000
5 Credits
Screenwriting Essentials
Screenwriters are tasked with translating the story into the structure demanded by a teleplay or screenplay. Whether it is selecting what story elements to keep — and which to throw away — or how to structure a story so it is told in the most dramatic way possible, screenwriters use the opportunities provided in their chosen medium — film, television, etc., to create the blueprint of the production.

FILM 6001
5 Credits
Producing Essentials
Producers play a vital role in the selection of material, business development, legal filings and creative execution of content produced for theater, streaming or broadcast lead to that position. The producer has a role that is part business person and part creative executive. This course will present an overview of the expectations placed on the producer, and a career path which can lead to that position.

FILM 6002
5 Credits
Directing Essentials
Directors do not merely interpret the screenplay. They must understand how best to exploit its cinematic potential. Whether it be in the casting, the locations, in the performances or in the design of the production and camerawork to be used, the director must accept the creative responsibility of anchoring the production for the entirety of its development and execution.

FILM 6003
5 Credits
Cinematography Essentials
Armed with the script and supported by production designers and the cast, the cinematographer must lead the talented crew on the set, to visualize and photograph the story. A creative cinematographer is not just a talented photographer, but a key collaborator in how the story is told. The role demands knowledge of the ever-changing technology of film, and the skills to obtain the best work from a large crew. There are a lot of moving parts the cinematographer must lead in order to best serve the production and allow it to move toward fruition.

FILM 6004
5 Credits
Editing/Postproduction Essentials
The editor is the anchor of the film project. Relied upon and trusted by directors and producers to provide another set of “eyes,” the editor not only assists in selecting the best material to use, but often decides where it should be used. Decisions about cutting scenes, moving them around as the story demands and otherwise structuring the story in ways not previously seen often fall to the editor. Artists such as Orson Welles said, “Editing isn’t just a part of filmmaking. Editing is filmmaking.”

FILM 7000
5 Credits
Screenwriting
Students taking the screenwriting concentration take this course four times for a total of 20 credits.

FILM 7001
5 Credits
Producing
Students taking the producing concentration take this course four times for a total of 20 credits.

FILM 7002
5 Credits
Directing
Students taking the directing concentration take this course four times for a total of 20 credits.

FILM 7003
5 Credits
Cinematography
Students taking the cinematography concentration take this course four times for a total of 20 credits.

FILM 7005
5 Credits
Editing
Students taking the editing concentration take this course four times for a total of 20 credits.

Internship Courses can replace the main concentration courses
Director’s permission required

FILM 8001 Screenwriting 1 Internship
FILM 8002 Producing 1 Internship
FILM 8003 Directing 1 Internship
FILM 8004 Cinematography 1 Internship
FILM 8005 Editing 1 Internship
FILM 8006 Screenwriting 2 Internship
FILM 8007 Producing 2 Internship
FILM 8008 Directing 2 Internship
FILM 8009 Cinematography 2 Internship
FILM 8010 Editing 2 Internship

Finance (M.B.A.)
See Business, Finance, page 68.

Forensic Psychology (M.A.)
See Psychology, Forensic Psychology pages 229–231.

General/Theoretical Psychology (M.A.)
Global Affairs

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

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

Admission Requirements
The credentials required for admission to the master’s degree in global affairs as a matriculated student include the following:
1. A graduate application for admission and nonrefundable application fee.
2. A bachelor’s degree (or corresponding post-secondary degree) from an accredited college or university with a minimum cumulative grade point ratio (CGPR) of 2.70. Applicants with a CGPR of less than 2.70 may be admitted as matriculated students on probation.
3. Official transcripts from all colleges and universities previously attended. Applicants who are unable to provide official documents at the time of enrollment may register as nonmatriculated students with a graduate faculty adviser. Spouses and dependents may also apply, and a number of seats are held for U.S. citizens. Applicants who are not consular or diplomatic personnel must provide the following in addition to the above:
   1. Two letters of recommendation.
   2. A cover letter briefly outlining career ambitions. (Spouses or dependents of a consular or diplomatic employee must indicate this in their cover letter.)

Requirements for the Master of Arts Degree
1. Students must complete 30 credits (10 courses) of graduate-level course work in political science or in sister disciplines, as approved, in history, economics, business or public administration or administrative science.
2. Students are strongly encouraged to engage in a thesis and use up to six credits to complete it.
3. A cumulative grade point ratio of 3.00 on a 4.00 scale is required for graduation. Students who receive more than two grades of C or lower will be dismissed from the program.

Certificate in Diplomacy and International Relations
Students may earn a Certificate in Diplomacy and International Relations after completing any six courses listed for the Master of Arts in global affairs. The certificate is listed on student transcripts and students receive a paper certificate.

Students may apply for the certificate program only and later apply the credits toward a Master of Arts in global affairs.

Course Offerings
Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the academic adviser.

Global Affairs
School of Public and Global Affairs

POLS6702  3 Credits
Thesis Seminar
Collaborative preparation for a substantial thesis, including research questions, hypothesis-construction, proposal-writing and the literature review.

POLS6711  3 Credits
Genocide
The course will examine the roots, the methods and the impact of genocide on the global community, including case studies from Armenia to Darfur.

POLS6801  3 Credits
Methods of Political Analysis
A study of fundamental concepts and materials required for political analysis. Development of techniques for hypothesis formation; collection, evaluation and presentation of data.

POLS6816  3 Credits
World Heritage Law and Policy
Practical thinking about ideas of “World Heritage” and sustainable development including religion, environment, warfare, destruction and ruins and rebuilding initiatives. Topics include: conversation law; case studies from the Arabian Peninsula, Asia and East Africa; heritage as sites for tourism; transportation; trade; pilgrimages; moveable collections; museums; parks; fixed relics; foods; and sounds, sights and smells in the natural landscape. A field project challenges participants to match theory with project-based goals to contribute to a digital archive or drafted policies to conserve and preserve UNESCO world heritage sites.

POLS6840  3 Credits
Thesis or Project

POLS6870  3 Credits
Ethics in Public Affairs
This seminar explores the use (and abuse) of moral reasoning and cost-benefit analysis in politics through the critical examination of controversial political issues, such as abortion, affirmative action, health care, welfare reform, military intervention and the death penalty.

POLS6871  3 Credits
Latin-American Relations
This is a study of the modern relationship between the U.S. and specific Latin-American nations.

POLS6873  3 Credits
Seminar on Globalization
This seminar will examine globalization as an important characteristic of the new world order, which is represented by the expansion of market forces and the global transfer of sociocultural and political institutions.

POLS6874  3 Credits
Trafficking in Humans
Examines various issues related to human trafficking with emphasis on political concerns and trade, how they trade and who gains or loses. The class also examines regulations and restrictions on international trade and their root causes in culture, custom and law.

POLS6875  3 Credits
Seminar in International Trade
Why nations and organizations trade, what they trade, how they trade and who gains or loses. The class also examines regulations and restrictions on international trade and their effects. Topics include commodities markets, foreign direct investment, international transactions under authoritarian regimes, the role of banks and brokers, international trade...
agreements, parallel markets and current trade policy disputes.

POLS7821 3 Credits
**Modern Political Theory**
Traces the main developments in modern political thought from Hobbes to Mao. Emphasizes problems regarding liberty, political obligation, the common good, etc.

POLS7822 3 Credits
**The Character of Revolutionary Movements**
An examination of selected revolutionary movements with emphasis on cause, organization and outcome.

POLS7823 3 Credits
**Foreign Policy and Diplomacy**
Intensive analysis of the dynamics of world politics in the independent post-World War II era; the conceptions of world order among major actors, national and global interests, transnationalism, instrumentalities of foreign policy development and diplomatic processes.

POLS7826 3 Credits
**Politics of Public Policy**
Studies declared intentions and actions of elected officials in meeting human needs and resolving conflicts within society. Emphasizes agenda setting, policy-making models, policy formulation, implementation, evaluation and the role of ideology.

POLS7830 3 Credits
**International Organizations**
Typology of organizations: League of Nations to the United Nations, regional organizations, public and private international organizations and transnational organizations.

POLS7831 3 Credits
**International Law**
Origin of international law and its relationship to municipal law. Challenges and responses to current issues.

POLS7832 3 Credits
**International Problems and Conflict Resolution**
Causes and possible solutions to major international conflicts.

POLS7833 3 Credits
**Modern Warfare and Global Stability**
Impact of insurrection, unconventional warfare and terrorism on the international community.

POLS7834 3 Credits
**Politics of the Global Economy**
A study of the relationship between political motivations and economic actions on the international economy. With emphasis on the interplay between the free market and planned economies.

POLS7835 3 Credits
**Geography and World Politics**
Examines the political ramifications of environmental decay, economic and environmental refugees and the utilization of finite resources.

POLS7836 3 Credits
**Crisis Leadership**
The principles of leadership during times of significant stress. Various models, strategies and tactics of leadership are studied using the examples of civilian and military leaders.

POLS7837 3 Credits
**The Modern Balkan States**
An intensive examination of the political, economic and cultural forces that shaped the modern Balkan states. The formation of national identities, intrastate institutions, modernization, stability and change and interstate relations in the region will be among the topics covered at the first level of analysis. A second level of analysis views the region within its European context and in a framework of world affairs from the 19th century to the present. Particular attention will be given to Greece and Turkey as the principal Balkan powers.

POLS7838 3 Credits
**Political Leadership and the U.N.**
Using case studies and current events, the course provides the skills and perspective to better comprehend rapid changes in the global arena, beginning with an introduction to the United Nations; its institutional structure, goals and mechanisms; its Charter; the General Assembly, Security Council, Economic and Social Council, Trusteeship Council and Secretariat; and its roles in peacekeeping, sanctions, collective security, authorizing military action, disarmament, human rights and the global war against terrorism.

POLS7851 3 Credits
**Forces and Issues: Middle East**
Examines the trends and political forces at work in the region, past struggles, current issues and future aspirations.
### Health Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS7853</td>
<td>3</td>
<td>The New Europe</td>
<td>The state system of Europe: integration and consolidation since World War II and global implications for East-West relations.</td>
</tr>
<tr>
<td>POLS7854</td>
<td>3</td>
<td>Changing Eastern Europe</td>
<td>Examines the dissolution of the Communist Bloc and the movement toward new ideologies. Emphasizes nationalism, ethnicity and economic organization.</td>
</tr>
<tr>
<td>POLS7855</td>
<td>3</td>
<td>The Modern African State</td>
<td>Examines development of selected African states in terms of history, ideology and institutions. Emphasizes the region south of the Sahara, including Nigeria, Zaire and the Union of South Africa.</td>
</tr>
<tr>
<td>POLS7856</td>
<td>3</td>
<td>Cities in Crisis</td>
<td>The course will examine problems faced by cities: crime, housing, education and finances. It will consider causes and solutions to these problems.</td>
</tr>
<tr>
<td>POLS7863</td>
<td>3</td>
<td>Comparative Government: Middle East</td>
<td>Examines diverse systems of government among selected Middle East states. Emphasizes historical development, current ideologies, institutions and practices.</td>
</tr>
<tr>
<td>POLS7866</td>
<td>3</td>
<td>Africa in World Politics</td>
<td>Examines the impact of African affairs on contemporary world issues. Emphasizes political alignments, economic integration and social diversity.</td>
</tr>
<tr>
<td>POLS7867</td>
<td>3</td>
<td>Political and Economic Challenges for Africa</td>
<td>Examines contemporary issues in Africa. Project trends in political development, human rights and environmental programs.</td>
</tr>
<tr>
<td>POLS7868</td>
<td>3</td>
<td>Terrorism and Insurgency</td>
<td>Examines the conditions that encourage intervention, clandestine political action, demonstration of force, unconventional warfare and terrorism and their impact on the global community.</td>
</tr>
<tr>
<td>POLS7869</td>
<td>3</td>
<td>Economics of National Security</td>
<td>An analysis of the economic drivers and costs of national security. Security issues include, among others, insurgency, terrorism and ethnic conflicts.</td>
</tr>
<tr>
<td>POLS7870</td>
<td>3</td>
<td>International Implications of Middle East Problems</td>
<td>Examines ways in which competing systems within the region affect international alliances and trade. Emphasizes role of Islamic fundamentalism, natural resources and political ideologies.</td>
</tr>
<tr>
<td>POLS7871</td>
<td>3</td>
<td>The Modern Asian State</td>
<td>Examines the development of selected Asian states with an emphasis on historical influences, ideologies, institutions and economic philosophies.</td>
</tr>
<tr>
<td>POLS7872</td>
<td>3</td>
<td>China and Japan: Comparative Systems</td>
<td>Examines the political, economic and social institutions of both nations. Emphasizes the competition for leadership in the region.</td>
</tr>
<tr>
<td>POLS7873</td>
<td>3</td>
<td>Political and Economic Challenges: Asia</td>
<td>Examines the impact of global events on Asian development. Emphasizes roles of the developing nations, the “Little Tigers,” China and Japan in political and economic coordination.</td>
</tr>
<tr>
<td>POLS7874</td>
<td>3</td>
<td>Latin America: New Challenges</td>
<td>Political responses to the economic and social challenges of modernization. Focuses on democratization efforts and economic cooperation.</td>
</tr>
<tr>
<td>POLS7875</td>
<td>3</td>
<td>Canada, Mexico and U.S. Perspectives</td>
<td>Examines the growing interdependence of the North American nations. Emphasizes political, diplomatic and economic interaction and identifies future trends.</td>
</tr>
</tbody>
</table>

### 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 three 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 two tracks that provide the opportunity for specialization in clinical research administration and regulatory science. 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 three 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 two specially designed tracks provide focused expertise in the areas of clinical research administration or regulatory science. 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 three 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 administration and regulatory science 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 specializations 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 administration 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.

These three 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 this page, regulatory science page 168 and clinical research administration page 169.

**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 35 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 of 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 School of Pharmacy and Health Sciences and the 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 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) — GPS Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSCI6200</td>
<td>3</td>
</tr>
<tr>
<td>Ethics of Health Care Research</td>
<td></td>
</tr>
<tr>
<td>HSCI6250</td>
<td>3</td>
</tr>
<tr>
<td>Psychology for the Medical Sciences</td>
<td></td>
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<tr>
<td>HSCI7302</td>
<td>3</td>
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<tr>
<td>Epidemiology and Study Design Evaluation</td>
<td></td>
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<tr>
<td>HSCI7401</td>
<td>3</td>
</tr>
<tr>
<td>Biostatistics</td>
<td></td>
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<tr>
<td>HSCI8806</td>
<td>3</td>
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<tr>
<td>Project Management</td>
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**GPS Requirements**

<table>
<thead>
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<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL6891</td>
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<tr>
<td>Histology</td>
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<tr>
<td>BIOL6892</td>
<td>3</td>
</tr>
<tr>
<td>Human Physiology</td>
<td></td>
</tr>
<tr>
<td>BIOL6893</td>
<td>3</td>
</tr>
<tr>
<td>Human Anatomy</td>
<td></td>
</tr>
<tr>
<td>CHEM6663</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Medicinal Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM6685</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacology</td>
<td></td>
</tr>
<tr>
<td>CHEM6781</td>
<td>3</td>
</tr>
<tr>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM7500</td>
<td>3</td>
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<tr>
<td>Technical and Scientific Writing</td>
<td></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 guidelines.
- 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, 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 Number</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSCI7302</td>
<td>Epidemiology and Study Design Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>HSCI7401</td>
<td>Biostatistics</td>
<td>2</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>
<td>2</td>
</tr>
<tr>
<td>PHAR6601</td>
<td>Health Care Systems and Policy</td>
<td>3</td>
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</table>

Regulatory Science Requirements

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<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>
</tr>
<tr>
<td>REGS7104</td>
<td>Regulatory Affairs Capstone</td>
<td>3</td>
</tr>
<tr>
<td>REGS8812</td>
<td>Clinical Trial Research Administration</td>
<td>3</td>
</tr>
<tr>
<td>REGS8821</td>
<td>Regulatory Compliance for Pharmaceuticals</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, 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

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<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSCI7302</td>
<td>Epidemiology and Study Design Evaluation</td>
<td>3</td>
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<tr>
<td>HSCI7401</td>
<td>Biostatistics</td>
<td>2</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>
<td>2</td>
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<tr>
<td>PHAR6601</td>
<td>Health Care Systems and Policy</td>
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Clinical Research Administration Requirements

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<tr>
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<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLIN7104</td>
<td>Clinical Research Administration Capstone</td>
<td>3</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>
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</tbody>
</table>
**Health Science**

- **Credits**
  - HSCI7810 Clinical Trial Design and Regulatory Requirements 3
  - HSCI8810 Medical and Clinical Report Writing 3
  - HSCI8822 U.S. Regulatory New Drug Application and Submission and Dossier Preparation 3

**Course Offerings**

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

**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.)

**BIOL6893 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.)

**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 Administration 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. (Equivalent to HSCI7104 Clinical Research Administration Capstone.)

**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.

**HSCI6200 3 Credits**
**Ethics of Health Care Research**

The student will examine the ethical issues that confront all aspects of health care.

**HSCI6250 3 Credits**
**Psychology for the Medical Sciences**

This course is designed to help preprofessional graduate students understand the mutually interactive roles of psychological/neuropsychological and biomedical processes. It will examine the theory and research on the neurobiological and psychological foundations of psychological health, wellness and psychopathology. Topics will include research methods, biological, sociocultural and psychological factors in human functioning, as well as psychiatric diagnostic classifications.

**HSCI6663 3 Credits**
**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 the undesirable side effects. (Equivalent to CHEM6663 Introductory Medicinal Chemistry.)

**HSCI6685 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 CHEM6685 Pharmacology.)

**HSCI6781 3 Credits**
**Medical and Clinical Report Writing**

This student will examine the ethical issues that confront all aspects of health care.

**HSCI6653 3 Credits**
**Biochemistry for the Medical Sciences**

Based on the chemistry of substances of biological significance, structures and mechanisms of hydrolytic and respiratory enzymes, biosyntheses of proteins, biooxidations and molecular structures of complex molecules. (Equivalent to HSCI6653 Biochemistry.)

**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.
HSCI6835
3 Credits
**Special Topics Chemistry: Drugs of Abuse**
Knowledge of the varieties of illegal drugs, history, mechanism of action, their toxic effects and tissue damage and an understanding of the basic drug action and pharmacological methods (selectivity, dose-response, affinity, potency, intrinsic activity, binding, absorption, distribution, tolerance, dependence, half-life, metabolism, clearance excretion, adverse reactions, lethality and drug interactions).

HSCI6891
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 function in the human body. They 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 BIOL6891 Histology.)

HSCI6892
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 BIOL6892 Human Physiology.)

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.)

HSCI7302
3 Credits
**Epidemiology and Study Design Evaluation**
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.

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 the interpretation of statistical results.

HSCI7500
3 Credits
**Technical and Scientific Writing**
Introduction to 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.)

HSCI7751
3 Credits
**Insights Into Human Disease**
This course will cover existing understanding and approaches to studying human disease. It will cover topics such as types of cancer, muscular dystrophy, familial hypercholesterolemia, diabetes and/or other diseases. It will address the genetics of simple and complex traits behind these diseases, genetic analysis and diagnosis and disease-treatment strategies such as drug development.

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.

HSCI8405
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, 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 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.

PADM7751
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 HSCI7751 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.

REGS8812
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.

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.
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 Metropolitian Campus, Teaneck, New Jersey; various locations throughout New Jersey; and at the FDU Vancouver Campus, British Columbia, Canada.

**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.

**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.

**Course Requirements (33 credits)**

**Required Hospitality Management Courses (9 credits)**

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM7715</td>
<td>3</td>
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<tr>
<td>HRTM7751</td>
<td>3</td>
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<tr>
<td>HRTM7752</td>
<td>3</td>
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**Supporting Hospitality Management Courses (18 credits)**

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<tr>
<td>HRTM7708</td>
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<tr>
<td>HRTM7710</td>
<td>3</td>
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<tr>
<td>HRTM7713</td>
<td>3</td>
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<td>HRTM7714</td>
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<tr>
<td>HRTM7716</td>
<td>3</td>
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<tr>
<td>HRTM7734</td>
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**Free Electives (6 credits)**

This area is to be chosen by students with approval from an adviser.

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<tr>
<td>HRTM7751</td>
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<td>HRTM7752</td>
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<td>HRTM7753</td>
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Graduate students have seven years to complete all of the course work requirements of the M.S. degree including the Special Project.

**Credits**

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<tr>
<td>HRTM6100</td>
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<tr>
<td>HRTM6200</td>
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**Special Project**

- Must be taken in the first semester.

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*Must be taken in the first semester.
**Must be taken in the first or second semester.
***Taken after completing 18 credits.
****Taken after completing 24 credits.
Hospitality Management Studies

Course Offerings

Hospitality Management Studies
International School of Hospitality and Tourism Management

Foundation Courses for Non-hospitality Majors

HRTM6100 3 Credits
Hospitality Operations Management
This course must be taken in the first semester as a free-elective credit subject. Topics reviewed will include hospitality operations management, food and beverage management and managerial accounting. Students must develop a comprehensive business plan for a hospitality project that integrates these key areas to successfully complete the requirements for this course.

HRTM6200 3 Credits
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

HRTM7715 3 Credits
Special Project*
This course provides an interactive, culminating learning project that focuses on an area related to the hospitality industry chosen by the student in line with the student’s area of professional interest.

HRTM7751 3 Credits
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.

HRTM7754 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 non-hospitality 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.

HRTM7721 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.

HRTM7722 3 Credits
Advanced Hum an 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.
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 Intelligences 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 skill sets 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.

HRTM7740
3 Credits
Advanced New Venture Management
This is an entrepreneurial course that is designed for graduate students in the hospitality industry. The course will teach the fundamental concepts of how to start and run a successful hospitality business, including the development of business plans, financial projections, valuation analysis, capital raising and legal and tax reviews. It also will focus on how to identify the market to customers as well as how to pitch the business plan and negotiate with banks and investors.

HRTM7742
3 Credits
International Tourism
This course will explore tourism as generator of foreign exchange for developing countries and how it contributes to economic development. How sustainable tourism can help economic development in developing countries will also be explored as well as economic relationship between developed and developing countries and the role tourism plays in this relationship.

HRTM7745
3 Credits
International Tourism Study Internship
Students must successfully plan and execute — under International School of Hospitality and Tourism Management faculty member supervision — all travel arrangements for a study-abroad program at FDU. This internship requires students to travel with the group for which they planned all arrangements.

HRTM7746
3 Credits
Entrepreneurship and You
An introduction to the basic components involved in establishing and operating one’s own business in the hospitality/tourism industry. Topics include how to create a concept and product, how to develop a business plan, pricing, product development, advertising, distribution, logistics, market research, sales, banking (letters of credit) and organizational skills. With a hands-on approach, the course will provide students with the tools needed to succeed in establishing and running their businesses.

HRTM7748
3 Credits
Developing a Sustainability Mindset in Hospitality and Tourism
Developing the sustainability mindset through exercises and dialogue. 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.

HRTM7749
3 Credits
Best Practices in Human Resource Management
The course provides an in-depth review of human resource management practices, with a case-study review of best practices across a wide variety of industries. Students will learn about the human resource functions and activities common in well-run companies and the critical role this function plays in the hospitality industry.

HRTM7750
3 Credits
Project Management in the Service Sector
The course focuses on the practices and processes utilized to manage complex organizational projects. The class provides students with a strategic-system perspective on the management of projects utilizing modern project management tools and techniques.
HRTM 7997
3 Credits
Communications for the Casino-industry Professional
This course will help casino-industry professionals improve their communication skills. The course will first focus on writing, including essays, letters, memos and reports. Second, oral communication and public and private speaking will be emphasized. Finally, the course will consider the unique problems of communicating effectively in the casino industry, including language and communication problems unique to the culture of gambling.

HRTM 7998
3 Credits
History of Casino Gaming
This course will familiarize students in the gaming hospitality industry with the historical development of gaming. This will help industry professionals not only by increasing their knowledge of information about their chosen field, but by giving them a better perspective on how and why the industry evolved as it did. It will provide students with an accurate picture of current developments in the casino industry throughout the nation.

HRTM 7999
3 Credits
Casinos’ Social and Economic Approach
Introduction to casino operations and management with a social and economic approach. Emphasis on the multiplying effects that casinos have on communities and social problems.
Fall, Spring

Industrial/ Organizational Psychology (M.A.)
See Psychology, Industrial/Organizational Psychology, pages 220–222.

International Business (M.B.A.)

Learning Disabilities (M.A.)

Management (M.B.A.)
See Business, Management, page 69.

Management (M.B.A.) for Executives — General Management
See Business, Management (M.B.A.) for Executives — General Management, page 73.

Management (M.B.A.) for Executives — Health Sector Management
See Business, Management (M.B.A.) for Executives — Health Sector Management, page 74.

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
Management Information Systems

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 prerequisite courses.

Prerequisite Courses (12 credits)
The prerequisite courses for the M.S. in management information systems are:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT5012</td>
<td>Financial Accounting: End-User</td>
<td>2</td>
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<tr>
<td></td>
<td>Applications</td>
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</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>ECON5012</td>
<td>Economic Analysis</td>
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<tr>
<td>MKTG5012</td>
<td>Marketing Principles</td>
<td>2</td>
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Required Courses (18 credits)

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<tr>
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<th>Course Title</th>
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<tr>
<td>CSCI6603</td>
<td>Computer Architecture</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>
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</tr>
<tr>
<td>CSCI6758</td>
<td>Electronic Commerce</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses (12 credits)

Students must select four electives from the following:

- CSCI6638 Operating Systems
- CSCI6731 Computer Networks
- CSCI6733 Decision Support Systems
- CSCI6734 Expert Systems
- CSCI6735 Client-server Computing
- CSCI6751 Artificial Intelligence
- CSCI6810 Java and the Internet
- CSCI6844 Programming for the Internet
- CSCI7728 Development of MIS 2: Systems Design, Implementation and Maintenance
- CSCI7781 Advanced Database Systems
- CSCI7785 Distributed Database Systems
- CSCI7795 Building Electronic Commerce Systems

Management Information Systems Certificate

The certificate program in management information systems provides individuals with a broad 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.

Requirements for Certificate in Management Information Systems

18 credits (six courses) are required to complete the program.

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</thead>
<tbody>
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</tr>
<tr>
<td>CSCI6625</td>
<td>Database Systems</td>
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</tr>
<tr>
<td>CSCI6720</td>
<td>Management Information Systems</td>
<td>3</td>
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<tr>
<td>CSCI6758</td>
<td>Electronic Commerce</td>
<td>3</td>
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<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>

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 104–110.

Management Information Systems

Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

CSCI5525 5 Credits

Introduction to Computer Science

Introduction to computer hardware and software, interactions and tradeoffs. Essentials of computer organization and arithmetic, assemblers, I/O devices, operating systems and files. May be taken with CSCI5505 Introduction to Computer Programming or CSCI5550.
Medical Technology

Business Programming Techniques and Data Structures (management information systems course).
Fall

CSCI5550
3 Credits
Business Programming Techniques and Data Structures
Methodical development of limited-size programs with the use of a procedural language (Visual Basic). Fundamental data structures: arrays, records, lists and trees. Sorting and searching. Stress on structured development techniques, systems development life cycle, with an introduction to prototyping and program maintenance. Laboratory.

CSCI5551
3 Credits
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

CSCI6731
3 Credits
Computer Networks
Introduction to the theory and practice of computer networking. Network design and analysis, elementary queueing theory. Network protocols. Functions of the layers of ISO reference model, including routing, flow control, error control, sequencing and addressing. Prerequisite: CSCI5525 Introduction to Computer Science.
Fall

CSCI6733
3 Credits
Decision Support Systems
Characteristics of decision support systems (DSS) within the 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. Laboratory. Prerequisite: CSCI6720 Management Information Systems.

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.

CSCI7727
3 Credits
Development of MIS 1: Project Management and Systems Analysis
Techniques of information system project management, cost/benefit analysis, development time and cost estimation. Organization of the development process: detailed discussion and 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

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:

- BIO76240, BIO76241
- Molecular Cell Biology
  (Lecture and Laboratory).................4
- BIO76705
- Advances in Cell Biology..................3
- BIO76724
- Human Genetics................................3
- BIO76733
- Enzymology....................................3
- BIO76761, BIO76661
- Advanced Microbiology
  (Lecture and Laboratory)....................5
- CHEM7525
- Physical Chemistry............................3
- CHEM7529
- Microbiology and Biochemistry..........3
- CHEM7663
- Physical Organic Chemistry..............3
- CHEM7681
- Biochemistry.................................3

Computer Science

Select 6 credits from the following:

- CSC75505
  Introduction to Computer Programming....3
- CSC75525
  Introduction to Computer Science......3
- CSC76720
  Management Information Systems........3
- NURS76640
  Clinical Nursing Information Systems and Applications........3

Administration/Business

Select 6 credits from the following:

- MGMT75012
  Foundations of Management.............2
- PADM76602
  Budgeting and Finance................3
- PADM76604
  Human Resources Management........3
- PADM77731
  Introduction to Health Systems and Policy..................3

Introduction to Research

- NURS77701
  Advanced Research and Evidence-based Practice........3

Research Seminar

- NURS77752
  Master Project Seminar..................2

Clinical Practicum (I, II, III)

- MEDT7623
  Clinical Practicum I.......................2
- MEDT7725
  Clinical Practicum II.....................2
- MEDT77731
  Clinical Practicum III...................2

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

BIO75306
3 Credits
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: BIO71251, BIO71253 General Biology I; BIO71252, BIO71254 General Biology II; BIO712210 Genetics; BIO712211 Laboratory: Genetics; CHEM7261 Organic Chemistry I; CHEM7263 Organic Chemistry Laboratory I; and CHEM7361 Biochemistry I.

BIO76705
3 Credits
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. Full, Spring

BIO76721
3 Credits
Advances in Molecular Genetics

Classical mechanisms of recombination in procaryote; 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: BIO72210, BIO72211 Genetics. Full, Spring

BIO76735
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

BIO76767
3 Credits
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.

MEDT7625
2 Credits
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 assurance procedures, application of theoretical information and technical competence will be emphasized. Students also will obtain additional experience in specimen collection, processing and management.

MEDT77701
3 Credits
Advanced Research

The advancement of knowledge in medical technology through research is explored. Critical analysis of selected concepts using 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. Research in medical technology and allied health is evaluated for utilization in practice cognizant of ethical issues. Prerequisite: background in statistics.

MEDT77725
2 Credits
Clinical Practicum II

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.

MEDT7751
2 Credits
**Clinical Practicum III**
Under supervision, students will observe and perform isolation, identification and susceptibility-testing procedures in microbiology. Students will gain experience in correlating theoretical knowledge with clinical practice, ensuring quality through performance and interpretation of quality-control procedures and addressing administrative and management issues of specimen acceptability, work flow, method assessment and appropriate use of interpretive guidelines. Prerequisite: MEDT7725 Clinical Practicum II.

MEDT7752
2 Credits
**Research Seminar**
The development and presentation of scholarly projects guided by faculty in selected areas of practice, administration and research. 
Prerequisite: MEDT7701 Advanced Research.

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**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)

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**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)

**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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>NURS6600</td>
<td>3</td>
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<tr>
<td>NURS7752</td>
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*Offered at both the Metropolitan Campus in Teaneck, New Jersey, and at the Florham Campus in Madison, New Jersey.
Advanced Nursing Practice Courses (22 credits)

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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<td>Advanced Pharmacology</td>
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<tr>
<td>NURS6620</td>
<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>Primary Care of the Adult Gerontology I - Theory</td>
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<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
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<tr>
<td>NURS7735</td>
<td>Advanced Adult Gerontology II Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS7736</td>
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<tr>
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</table>

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 credits

Advanced Nursing Practice Courses (22 credits)

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</table>

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 credits

Advanced Nursing Practice Courses (22 credits)

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</table>

Action 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, Victimization and Risk Reduction............. 3
PSYC6251 Psychological Bases of Criminal Behavior............................. 3
Total: 42 credits

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
Nursing

Nurse practitioner certification exam (AANP or ANCC) to become certified in the field. Also available online.

**Required Core Courses (8 credits)**

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<tr>
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<th>Credits</th>
</tr>
</thead>
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<tr>
<td>NURS6600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</td>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7752</td>
<td>Master Project Seminar</td>
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**Advanced Nursing Practice Courses (29 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS6615</td>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS6620</td>
<td>Advanced Health Assessment Theory</td>
<td>2</td>
</tr>
<tr>
<td>NURS6621</td>
<td>Advanced Health Assessment Practicum</td>
<td>2</td>
</tr>
<tr>
<td>NURS6682</td>
<td>Primary Care of the Adult Gerontology I – Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS6685</td>
<td>Primary Care of the Adult Gerontology I Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS7735</td>
<td>Advanced Adult Gerontology II Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS7736</td>
<td>Advanced Adult Gerontology II Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NURS7794</td>
<td>Family Care I Pediatrics</td>
<td>3</td>
</tr>
<tr>
<td>NURS7795</td>
<td>Family Primary Care I Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NURS7810</td>
<td>Family Primary Care II Theory</td>
<td>3</td>
</tr>
<tr>
<td>NURS7811</td>
<td>Family Primary Care II Practicum</td>
<td>1</td>
</tr>
<tr>
<td>NURS7812</td>
<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 Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS6600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</td>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7752</td>
<td>Master Project Seminar</td>
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**Advanced Nursing Practice Courses (34 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS6501</td>
<td>Advanced Psychiatric/Mental Health Nursing Theory I: Families, Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>NURS6502</td>
<td>Advanced Psychiatric/Mental Health Nursing Practicum I: Families, Children and Adolescents</td>
<td>2</td>
</tr>
<tr>
<td>NURS6503</td>
<td>Advanced Psychiatric/Mental Health Nursing Theory II: Adults</td>
<td>3</td>
</tr>
<tr>
<td>NURS6504</td>
<td>Advanced Psychiatric/Mental Health Nursing Practicum II: Adults</td>
<td>2</td>
</tr>
<tr>
<td>NURS6505</td>
<td>Advanced Psychiatric/Mental Health Nursing Theory III: Geriatrics</td>
<td>3</td>
</tr>
<tr>
<td>NURS6506</td>
<td>Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics</td>
<td>2</td>
</tr>
<tr>
<td>NURS6615</td>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS6620</td>
<td>Advanced Health Assessment Theory</td>
<td>2</td>
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<tr>
<td>NURS6621</td>
<td>Advanced Health Assessment Practicum</td>
<td>2</td>
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<tr>
<td>NURS6701</td>
<td>Psychopharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
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</tr>
<tr>
<td>NURS7812</td>
<td>Family Systems</td>
<td>3</td>
</tr>
<tr>
<td>NURS7815</td>
<td>Advanced Practice Nursing Role Development</td>
<td>3</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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS6600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
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</tr>
<tr>
<td>NURS7701</td>
<td>Advanced Research and Evidence-based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS7752</td>
<td>Master Project Seminar</td>
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**Advanced Nursing Courses (10 credits)**

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<tr>
<td>NURS7718</td>
<td>Administrative Practicum</td>
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<tr>
<td>NURS7771</td>
<td>Seminar in Nursing Education</td>
<td>3</td>
</tr>
<tr>
<td>NURS8002</td>
<td>Health Care Delivery Systems and Public Policy</td>
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</table>

**Nursing Information Systems Courses (6 credits)**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>NURS6640</td>
<td>Clinical Nursing Information Systems and Applications</td>
<td>3</td>
</tr>
<tr>
<td>NURS7741</td>
<td>Project Management</td>
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</table>

**Master of Administrative Science or M.B.A. Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>MADS6600</td>
<td>Theory and Practice of Administration</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3012</td>
<td>Foundations of Management</td>
<td>2</td>
</tr>
<tr>
<td>MADS6601</td>
<td>Financial Administration</td>
<td>3</td>
</tr>
<tr>
<td>FIN5012</td>
<td>Principles of Finance</td>
<td>2</td>
</tr>
<tr>
<td>MADS6606</td>
<td>Administrative Leadership in Complex Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT6012</td>
<td>Organizational Behavior and Leadership</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>32</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 preceptor practicum that is individually tailored to student goals and exposes them to all aspects of the faculty academic and clinical teaching role. Also available online.

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
NURS7713  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, information and knowledge to 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
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) 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 credits required are determined on an individual basis after gap analysis of prior education and certification. If the student is not a nurse practitioner, he or she must complete NURS6682 Primary Care of the Adult Gerontology I – Theory and NURS6683 Primary Care of the Adult Gerontology I Practicum and NURS7735 Advanced Adult Gerontology II Theory or NURS7736 Advanced Adult Gerontology II Practicum as well as NURS7794 Family Primary Care I and NURS7810, NURS7811 Family Primary Care II.

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) 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. Total clinical hours: 555 hours to be completed in the program.

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 191–192.

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 3 Credits

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, NURS6621 Advanced Health Assessment Practicum and NURS7702 Advanced Pathophysiology must have been completed within five years of entry into the program.

NURS6615 Advanced Pharmacology must have been within three years of entry into the program.

NURS6620 Advanced Health Assessment Theory, NURS6621 Advanced Health Assessment Practicum must have been completed within five years of entry into the program.
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. Corequisites: 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: NURS6503 Advanced Psychiatric/Mental Health Nursing Theory II: Adults.

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 Practicum II: Adults; and NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics. Corequisite: NURS6506 Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics.

NURS6506
2 Credits
Advanced Psychiatric/Mental Health Nursing Practicum II: Adults

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. Corequisites: 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 Practicum II: Adults; and NURS6504 Advanced Psychiatric/Mental Health Nursing Practicum III: Geriatrics. 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 for the treatment 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
1–2 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**
1 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. Corequisite: 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: NURS6615 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, 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 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 II: Group and Family Therapeutics to the care of groups and families experiencing the challenge of mental illness and dysfunction. 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 experimentation 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/Co-requisite: 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  
0 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.

NURS7704  
0 Credits  
Advanced Educator Role Seminar II  
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. Prerequisite: NURS6500 Educational and Learning Theory.

NURS7707  
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 in 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.
Nurses 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-based Practice, NURS7732 Master Project Seminar and NURS7771 Seminar in Nursing Education.

**NURS7735**
3 Credits
Advanced Adult Gerontology II Theory
This course will continue to examine, assess, diagnose and treat alterations in health which are frequently encountered and managed by adult-gerontology nurse practitioners using a systems approach. The student will also utilize QSEN (Quality and Safety Education for Nurses) to improve patient outcomes in the adult-geriatric population.

**NURS7736**
1–3 Credits
Advanced Adult Gerontology II Practicum
This course continues to focus on the application of theory to practice in a primary care setting for the adult-gerontology population. Students will work with an approved preceptor in an actual clinical setting where they will continue to deliver primary care to adult and geriatric patients. Students are expected to apply theory learned in the didactic course to patient to manage health problems. Students are expected to diagnose, treat and manage common illnesses and deviations from healthy for an adult aged population. Students are also expected to promote health maintenance including those from culturally diverse populations.

**NURS7740**
3 Credits
Nursing Informatics Role
This course builds upon the knowledge and skills of informatics nurse specialists obtained in the prerequisite course(s). Students will cover, in more depth, various alternative roles available to the informatics nurse, emphasizing consulting and education in various non-hospital-based situations. The course focuses on assessing, adapting, integrating and evaluating informatics applications to nursing for use in broad-based situations. Prerequisite: NURS6640 Clinical Nursing Information Systems and Applications.

**NURS7741**
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 nursing leaders. The course will outline the process for developing, implementing and evaluating project plans as well the integration of communication and project lifecycle theory. Prerequisites: NURS6640 Clinical Nursing Information Systems and Applications and NURS7740 Nursing Informatics Role. (Equivalent to PHRM8806 Project Management.

**NURS7745**
3 Credits
Practicum in Nursing Informatics
Practical experience in selected agencies allows students to develop skills needed for implementation and evaluation of clinical and management information systems in nursing and health care.

**NURS7746**
3 Credits
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. Approach 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: NURS7758 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 adult gerontology clientele. All clinical experiences will be supervised by expert preceptors who, along with the faculty instructor, will continually evaluate student performance. This course serves as a transition vehicle for future independent practice. Thus the student is supervised by a mentor, but is encouraged to assume the role of the adult gerontology nurse practitioner more autonomously. Prerequisite: NURS7755 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: NURS7755 Primary Care of the Adult Gerontology II – Theory. Corequisite: NURS7760 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 brief 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.

NURS7765
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.
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>
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<tbody>
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<td>Health 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>
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<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

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.

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.

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<tr>
<th>Course Code</th>
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<td>Health Quality Assessment and Outcomes</td>
<td>3</td>
</tr>
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<td>Leadership/Organizational Analysis</td>
<td>3</td>
</tr>
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<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>
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</tbody>
</table>

Total......12

Total Program......36

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.

*Students who are not actively registered for any course must register for NURS8320 Continuous D.N.P. Matriculation.
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.

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.

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</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 Program: 36 credits

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>
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<tbody>
<tr>
<td>NURS6600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>NURS7701</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.

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)

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>
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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>
</tbody>
</table>

*Students who are not actively registered for any course must register for NURS8320 Continuous D.N.P. Matriculation.

**Required prerequisite for one-year program; taken as corequisite for two-year program only.

*Must have been taken within the last five years.

M.S.N. Courses (22 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NURS6615</td>
<td>Advanced Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>NURS6620, NURS6621</td>
<td>Advanced Health Assessment (Lecture and Clinical)</td>
<td>4</td>
</tr>
<tr>
<td>NURS6682, NURS86685</td>
<td>Primary Care of the Adult Gerontology I (Lecture and Clinical)</td>
<td>4</td>
</tr>
<tr>
<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS7735, NURS7736</td>
<td>Advanced Adult Gerontology II (Lecture and Clinical)</td>
<td>4</td>
</tr>
<tr>
<td>NURS7759, NURS7760</td>
<td>Primary Care of the Adult Gerontology III (Lecture and Clinical)</td>
<td>4</td>
</tr>
</tbody>
</table>

After completing above courses, students take the APN exam.

D.N.P. Courses (36 credits)

<table>
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<tr>
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<tbody>
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<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>
</tbody>
</table>
Nursing Practice

D.N.P. Courses (36 credits)

NURS8001
Research I: Research Methodology..........................3
NURS8002
Applied Statistics..............................................3
NURS8003
Health Care Delivery Systems and Public Policy.........3
NURS8004
Research II: Evidence-based Research......................3
NURS8005
Leadership/Organizational Analysis........................3
NURS8006
D.N.P. Role Development and Entrepreneurship........3
NURS8007
Scientific Basis for D.N.P. Practice.......................3
NURS8008
Information Systems for Health Care.....................3
NURS8009
Global Health: Epidemiology and Genomics...............3
NURS8010
Health Quality Assessment and Outcomes........................3
NURS8011
Leadership/Organizational Analysis........................3
NURS8012
D.N.P. Role Development and Entrepreneurship........3
NURS8013
Residency I...................................................2
NURS8014
Capstone Project Advisement................................1

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 relationshipship 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 be able to identify experimental variables, understand and apply terminology, eyeball-estimate the descriptive and inferential statistics, if any, should be applied to analyze a data set, 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 is analyzed and 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.

NURS8013
1 Credit
Residency I
Building on the planned residency experiences of NURS8011 Leadership/Organizational Analysis and under the mentorship of a doctorally prepared preceptor, students immerse themselves in the role of clinical or organizational leader. Individual contracts will be developed. Residency placements are made dependent on current experiences and students’ goals. Students are required to complete 150 hours in NURS8013 Residency I. Prerequisites: all D.N.P. core and specialty courses.

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.

*Students who are not actively registered for any course must register for NURS8320 Continuous D.N.P. Matriculation.
Pharmaceutical Management Studies (M.B.A.)
See Business, Pharmaceutical Management Studies, page 70.

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 pharmaceutic 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, Florham Campus, Madison, New Jersey.

Admission Requirements

General Requirements Overview
Prior to matriculation, applicants to the FDU School of Pharmacy and Health Sciences should complete 76 semester hours of course work at any regionally
accredited college or university, including the following required courses:
• 8 semester hours of general biology (with laboratory)
• 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)
• 4 semester hours of physics (with laboratory)
• 3 semester hours of biochemistry
• 3 semester hours of calculus
• 3 semester hours of applied statistics
• 3 semester hours of English composition

Standardized Testing
The Pharmacy College Admissions Test (PCAT) or Graduate Record Examinations (GRE) is recommended to make an application more competitive but is not required.

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.
• Develop public health policy by developing strategic efforts to collaborate with policymakers, 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

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHRM6100</td>
<td>Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics</td>
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<tr>
<td>PHRM6101</td>
<td>Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
<td>3</td>
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<tr>
<td>PHRM6201</td>
<td>Pharmaceutics I: Physical Pharmacy</td>
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<tr>
<td>PHRM6211</td>
<td>Pharmaceutical Calculations I</td>
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<tr>
<td>PHRM6301</td>
<td>Medical Communication and Technical Writing</td>
<td>2</td>
</tr>
<tr>
<td>PHRM6321</td>
<td>Pharmacy Practice Law</td>
<td>2</td>
</tr>
<tr>
<td>PHRM6401</td>
<td>Professional Pharmacy Practice I: Health Care Delivery</td>
<td>3</td>
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Spring Semester

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<tbody>
<tr>
<td>PHRM6102</td>
<td>Integrated Pharmacotherapy II: Gastrointestinal</td>
<td>3</td>
</tr>
<tr>
<td>PHRM6103</td>
<td>Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care</td>
<td>3</td>
</tr>
<tr>
<td>PHRM6104</td>
<td>Integrated Pharmacotherapy IV: Cardiology/Pulmonology I</td>
<td>3</td>
</tr>
<tr>
<td>PHRM6111</td>
<td>Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care</td>
<td>2</td>
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<tr>
<td>PHRM6202</td>
<td>Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics</td>
<td>2</td>
</tr>
<tr>
<td>PHRM6212</td>
<td>Pharmaceutical Calculations II</td>
<td>1</td>
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<tr>
<td>PHRM6402</td>
<td>Professional Pharmacy Practice II: Communication in Health Care</td>
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2nd Year
Expanding Horizons

Fall Semester
PHRM7105
Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology
PHRM7106
Integrated Pharmacotherapy VI: Infectious Disease
PHRM7111
Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care
PHRM7201
Pharmaceutics III: Dosage Form and Drug Delivery Systems
PHRM7301
Biostatistics
PHRM7401
Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology
PHRM7700
Beyond the Curriculum: Expanding Horizons

Elective

Total: 19

Spring Semester
PHRM7107
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II and Eye Disorders
PHRM7108
Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health
PHRM7112
Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care
PHRM7202
Pharmaceutics IV: Sterile Products and Biopharmaceuticals
PHRM7302
Epidemiology and Study Design Evaluation

Elective

Total: 19

3rd Year
Preparing Practitioners

Fall Semester
PHRM8109
Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations
PHRM8110
Integrated Pharmacotherapy X: Hematology and Oncology
PHRM8111
Integrated Pharmacotherapy IX–X: Conceptual Connections and Patient Care
PHRM8302
Public Health and the Global Mission of Pharmacy
PHRM8321
Health Care Ethics and Team Decision Making
PHRM8700
Beyond the Curriculum/Preparing Practitioners
Electives

Total: 17

Spring Semester
PHRM8112
Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care
PHRM8201
Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes
PHRM8202
Pharmaceutics and Personalized Medicine
PHRM8402
Professional Pharmacy Practice IV: Pharmacy Leadership and Management
PHRM8701
Beyond the Curriculum/Preparing Practitioners
Electives

Total: 19

4th Year
Core Advanced Pharmacy Practice Experiences and Capstone

Elective Advanced Pharmacy Practice Experiences
Choose four

Total: 19
PHRM9209
Advanced Pharmacy Practice Experience (APPE) V: Elective – 
HIV/AIDS I...................................... 5

PHRM9210
Advanced Pharmacy Practice Experience (APPE) V: Elective – 
HIV/AIDS II.................................... 5

PHRM9211
Advanced Pharmacy Practice Experience (APPE) V: Elective – 
Home Infusion I.................................. 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 II............................. 5

PHRM9303
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Acute Care I..................................... 5

PHRM9304
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Acute Care 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

PHRM9310
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Oncology II......................................... 5

PHRM9311
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Critical Care I..................................... 5

PHRM9312
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Critical Care II................................. 5

PHRM9313
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Cardiology I......................................... 5

PHRM9314
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Cardiology II......................................... 5

PHRM9315
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Behavioral Health I............................. 5

PHRM9316
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Behavioral Health II............................. 5

PHRM9317
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Transitions of Care I............................... 5

PHRM9318
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Transitions of Care II.............................. 5

PHRM9319
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Nutrition Support I............................... 5

PHRM9320
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Nutrition Support II............................... 5

PHRM9321
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Emergency Medicine I............................ 5

PHRM9322
Advanced Pharmacy Practice Experience (APPE) VI: Elective – 
Emergency Medicine II............................ 5

PHRM9401
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Drug Information I.................................. 5

PHRM9402
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Drug Information II.................................. 5

PHRM9403
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Medication Safety I............................... 5

PHRM9404
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Medication Safety II............................... 5

PHRM9405
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Managed Care I.................................... 5

PHRM9406
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Managed Care II..................................... 5

PHRM9407
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Specialty Pharmacy I............................. 5

PHRM9408
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Medical Device/Patient Safety I.......................... 5

PHRM9410
Advanced Pharmacy Practice Experience (APPE) VII: Elective – 
Medical Device/Patient Safety II.......................... 5

PHRM9501
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Public Health I.................................... 5

PHRM9502
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Public Health II..................................... 5

PHRM9503
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Industry I............................................. 5

PHRM9504
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Industry II............................................. 5

PHRM9505
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Research I............................................ 5

PHRM9506
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Research II.......................................... 5

PHRM9507
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Marketing I......................................... 5

PHRM9508
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Marketing II......................................... 5

PHRM9509
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – 
Patient Advocacy I.................................. 5
Properties and an understanding of how 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 immune system 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 chemistry and pharmacotherapy 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.
environment. Prerequisites: PHRM6100
Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmaceutics and PHRM6101

PHRM6111
2 Credits
Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care
This course ties in the contents learned in Integrated Pharmacotherapy II–IV in a case-based, active-learning fashion. While Integrated Pharmacotherapy II–IV 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 calculation, all of which are commonly encountered in community practice. Real-life cases involving self-care, gastrointestinal and cardiovascular 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 introduced to various formats of patient documentation. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmaceutics and PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care. Corequisites: PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal; PHRM6103 Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care; and PHRM6104 Integrated Pharmacotherapy IV: Cardiology/Pulmonology I.

PHRM6201
3 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 biopharmaceutical 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, Pharmaceutics 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 interprofessional 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 I 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 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.

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
5 Credits
Integrated Pharmacotherapy VII: Cardiology/Pulmonary II and Eye Disorders
This is the seventh integrated pharmacotherapy module and the second of two courses focusing on the cardiovascular and pulmonary systems. It also covers selected diseases of the eye, ear, nose and throat. The anatomy, physiology, pathophysiology, medicinal chemistry, pharmacology, pharmacokinetics and pharmacotherapy related to the presentation and management of these disorders are covered. Physicochemical and biological principles of dosage forms and drug-delivery strategies used to treat these conditions are discussed, as are materials and methods used to prepare and administer the appropriate treatment. Prerequisites: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics and PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care. Corequisite: PHRM7112 Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care.
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 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, Urinary Tract, Renal and Reproductive Health.

PHRM7120
3 Credits
Problem-solving and Clinical Decision-making in Pharmacy I
This course will expand student skills and abilities in evaluating patient cases encountered in pharmacy practice. Cases may focus on calculations commonly performed in a community or institutional setting, pharmacokinetic or dosage-form consultations or clinical evaluations of drug therapy. The course will enhance students’ preparedness to provide patient-centered pharmaceutical care using pharmacists’ patient-care process. Emphasis will be placed on critical evaluation of clinical scenarios and decision-making and problem-solving process in pharmacy practice. Corequisite: PHRM7111 Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care.

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 toxicidromes 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 underlying 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.
**Professional Pharmacy Practice III: Drug Informatics and Toxicology**

This is the last of the three-course series in pharmacy. 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). Biological 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 to 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 Evaluation**

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 curtailing and prevention of substance abuse from a research perspective. Concepts will also be introduced in acute and chronic settings. 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: PHRM7302 Epidemiology and Study Design Evaluation.

**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: PHRM6301 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 and facile 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: Low-income Families and Homeless Population**

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. Students 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, student 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.

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 PHRM6701 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
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 the health information technology and the impact of technology, security and regulation on the transfer and storage of health information.

PHRM8109
3 Credits
Integrated Pharmacotherapy: Autoimmune, 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, 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 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
solves 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 IX–X, in a case-based, active-learning fashion. While Integrated Pharmacotherapy IX–X prepares 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 develop 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.

PHRM8112
2 Credits
Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting 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.


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. 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/Pulmonology I; 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 immuno deficiency 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.

PHRM8118
3 Credits
Advanced Topics in Pharmacotherapy: Advanced Cardiology
This elective course will build on the foundation of knowledge of cardiovascular disease and introduce some new disease states, which are not part of the required curriculum. The students will learn/evaluate major landmark trials in cardiology that provide therapy recommendations used in management of cardiovascular diseases today. The students will practice providing patient-specific recommendations based on evidence available from primary literature resources. The goals of this course are to develop skills necessary to optimize the care of inpatient and outpatient management of cardiovascular diseases by utilizing evidence-based and patient-centered therapy. The course will utilize a combination of didactic lectures, class discussions and collaborative learning. 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; PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal; PHRM6104 Integrated Pharmacotherapy IV: Cardiology/Pulmonology I; PHRM7107 Integrated Pharmacotherapy VII: Pulmonary, Eye, Ear, Nose and Throat; and PHRM7108 Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health. Corequisite: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.

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 pharmacotherapy and minimize adverse events are emphasized. The underlying principles of pharmacology, pharmacokinetics and pharmacotherapeutics 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
3 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 Pharmacuetics IV: Sterile Products and Biopharmaceuticals.

PHRM8212
3 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 PHRM6301 Medical Communication and Technical Writing. Corequisites: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.

PHRM8213
3 Credits
Principles of Drug Design
This course introduces students to the process of molecular drug design during the early stages of preclinical discovery. The focus of this course is to engage students in the drug design and discovery process. In the first half of the course, students will be educated on the fundamentals of drug design, medicinal chemistry and molecular pharmacology in order to understand rational drug design. The course will examine several cases of drugs and drug candidates that were successfully designed using medicinal chemistry, structure-based drug design and computer-aided drug design. Students will also learn molecular modeling software through tutorials in order to examine drug-target interactions. Drug-design problems such as toxicity, off-target binding, thermodynamics, ADME issues and drug resistance will also be considered and examined at the molecular level. The course emphasizes drug-design project teams; the second half of the course is devoted to team-based learning for drug case studies and completion of a group project/presentation. By the end of the course, students will be able to use fundamental knowledge and problem-solving abilities to rationally design a hypothetical drug (or drug class) based on a proposed pharmacophore and target structure. Prerequisite: PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics.

PHRM8301
3 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 formulary 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.

PHRM8305
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.

PHRM8321
1 Credit
Health Care Ethics and Team Decision Making
This course will introduce the students to the ethical issues that pharmacists and other healthcare professionals have to consider when treating patients. Various topics related to clinical ethics, including informed consent, decisional capacity, do-not-resuscitate orders, surrogate decision-making, confidentiality, the distinction between research and clinical care and end-of-life care will be introduced. Ethical decision-making will be practiced in an interactive environment through case studies with teams of students from various health professions. Corequisite: PHRM8111 Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care.
**PHRM8401**  
**5 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 incurs 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.

**PHRM8402**  
**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. Corequisite: 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 Pharmacoepidemiology, 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 Pharmacoepidemiology, 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 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).
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.

PHRM8804
3 Credits
**Applied Clinical Data Analytics**

This course teaches methodologies and technologies used heavily in the field of clinical analytics. Data-management principles, database foundations and aspects of the data pipeline are educated didactically before students begin to learn and utilize high-powered analytical tools such as Python, R and SQL. This course will heavily feature themes in health care as each of these tools and skills will be applied to real-world problems that data analytics is poised to help solve. Prerequisites: PHRM7801 Informatics and Information Systems and PHRM8802 Health Information Exchange and Security.

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.

PHRM8808
3 Credits
**Principles of Informatics in Population Health**

Much of pharmacy and medicine is in the treatment of individual patients with specific medical needs and conditions. A major focus now and for the future is population-health management in order to prevent our populations from becoming ill and needing acute treatment. Informatics and analytics are a necessary force multiplier for providers and pharmacists to enhance decision-making and enable care for entire populations of people. Through this course students will learn the management of populations as well as the information systems and techniques to do so safely and efficiently. This integrated course will have multiple instructors covering a wide range of population and public health content areas, which may include practicing physicians, nurses, pharmacists and care-management specialists. Prerequisites: PHRM7801 Informatics and Information Systems and PHRM8802 Health Information Exchange and Security.

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 six 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.

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
pharmacy

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.

PHRM 9205
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.

PHRM 9206
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.

PHRM 9207
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.

PHRM 9208
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.

PHRM 9209
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.

PHRM 9210
5 Credits
Advanced Pharmacy Practice Experience (APPE) V: Elective - HIV/AIDS II
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.

PHRM 9211
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.

PHRM 9212
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.

PHRM 9301
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.

PHRM 9302
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.

**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.
The five-credit cardiology advanced pharmacy practice experience is an elective clinical rotation offering students the 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.

The student will collaborate interprofessionally with members of the mental health care team and engage in patient monitoring, 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.

The five-credit behavioral health advanced pharmacy practice experience is an elective clinical rotation offering students the 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.

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, dieters, 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.nutritiocare.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.

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.

PHRM9321
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.

PHRM9322
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.

PHRM9401
5 Credits
Advanced Pharmacy Practice Experience (APPE) VII: 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/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
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.

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. The student 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 pharmacoeconomics 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 formulary 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 pharmacoeconomics 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 formulary 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.

**PHRM9410**
5 Credits
**Advanced Pharmacy Practice Experience (APPE) VII: Elective – Medical Device/Patient Safety I**
The five-credit medical devices and patient safety elective is designed to offer the student 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.
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.

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.

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.

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.

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, homecare, senior centers, mental health programs, drug/alcohol crisis programs, health associations and homeless clinics/shelters.

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.

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.
Political Science

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.

PHRM9515
5 Credits
Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Management I
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.

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, pharmacoconomics, 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.

PHRM9519
5 Credits
Advanced Pharmacy Practice Experience (APPE) Elective – Academia
This is an advanced pharmacy practice experience designed to enhance the students’ awareness of a career in academia. Students will be active participants in the creation of high-quality lectures and activities to P1-P5 student pharmacists. They will collaborate with pharmacy practice faculty to develop both small and large lecture materials, patient cases, class activities and quizzes. Students will have the opportunity to shadow administration and attend faculty and committee meetings. Acquisition of new knowledge and skills, and development of a unique teaching style and confidence in presentation skills are the goals of this elective course. Students are expected to be present at the site for a minimum of eight hours a day, five days a week, for five consecutive weeks. They must also adhere to the schedule established by the preceptor.

PHRM9900
1 Credit
Pharmacy Capstone I
This is the first course of a two-course series. This course will focus on reviewing and integrating all knowledge and skills acquired through the didactic and experiential curriculum in preparation for licensure. Basic and clinical sciences and pharmaceutical calculations will be emphasized. Capstone assessments will be administered.

PHRM9901
2 Credits
Pharmacy Capstone II
This is the second course of a two-course series. The course will focus on reviewing and integrating all knowledge and skills acquired through the didactic and experiential curriculum in preparation for licensure. Pharmacy law, basic and clinical sciences and pharmaceutical calculations will be emphasized. Capstone assessments will be administered.

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

The M.A. in political science offers three areas of concentration — international relations and the United Nations, international justice studies and American government and politics.

Grounded in the theoretical and applied knowledge of the discipline of political science, the program’s flexibility permits students to choose related and approved courses from the disciplines of criminal justice and history, as well as approved cross-listed courses in a variety of other disciplines.

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

For Information
For more information contact Dr. Samuel Raphaelides, director, School of Criminal Justice, Political Science and International Studies, at sjraph@fdu.edu or (201) 692-2413.
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 Examination, which may be waived.*
5. Two letters of recommendation attesting to the applicant’s interest and ability to undertake graduate-level studies.
6. Personalized interviews may be considered by the department’s Admission Committee.
7. Applicants under consideration may be required to complete an abbreviated research paper that demonstrate their ability for effective writing.

Requirements for the Master of Arts Degree

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

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

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM6025 Social Science Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>POLS6800 Graduate Independent Study</td>
<td>3</td>
</tr>
<tr>
<td>POLS7820 Models of Political Systems</td>
<td>3</td>
</tr>
<tr>
<td>POLS7826 Politics of Public Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM6010 U.S. Constitution, Public Policy and Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM6020 Statistics and Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7020 Ethics, Politics and Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7025 Comparative Criminal Justice Systems</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7030 Principles of Leadership</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7080 Politics and Policies of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM7085 Advanced Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>HIST6714 U.S. and the Developing World</td>
<td>3</td>
</tr>
<tr>
<td>HIST7712 Constitution: Transition</td>
<td>3</td>
</tr>
<tr>
<td>POLS6682 Diplomatic History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>POLS6711 Genocide: From an American Perspective</td>
<td>3</td>
</tr>
<tr>
<td>POLS6753 American Culture in a Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>POLS6871 U.S.-Latin American Relations</td>
<td>3</td>
</tr>
<tr>
<td>POLS7810 Constitution Issues/U.S. Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>POLS7815 Nationalism and Its Discontents</td>
<td>3</td>
</tr>
<tr>
<td>POLS7820 Models of Political Systems</td>
<td>3</td>
</tr>
<tr>
<td>POLS7821 Modern Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>POLS7822 The Character of Revolutionary Movements</td>
<td>3</td>
</tr>
<tr>
<td>POLS7825 Foreign Policy and Diplomacy</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.

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.

Political Science

School of Criminal Justice, Political Science and International Studies

CRIM6010 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.
Political Science

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; explanatory 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).

CRIM6025
3 Credits
Social Science Research Methods
This course will emphasize the conceptual foundations and methodological approaches used in social science research. This course introduces tools of quantitative reasoning and statistics that can be used to address problems in basic research and policy within social sciences, particularly in the criminal justice field. The primary objectives of the course are to build familiarity with the fundamentals of probability and statistical analysis, central concepts of research design and norms of ethical behavior in research.

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, to include the role and influence of politics, 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.

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 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.

HIST6714
3 Credits
U.S. and the Developing World
An analysis of the political and economic relationship of the United States with selected developing regions of the world in the context of growing global interdependence.

HIST7712
3 Credits
Constitution: Transition
Analyzes the impact of and process of change resulting from political, economic and social challenges to constitutional thought over the last century.

POL6682
3 Credits
Diplomatic History of the U.S.
The course will consider the various stages of U.S. diplomatic policies with an emphasis on the United States as a major world player.

POL6711
3 Credits
Genocide: From an American Perspective
The course will examine the roots, methods and impact of genocide on the global community from an American perspective. It will include selected case studies from Armenia to Darfur.

POL6753
3 Credits
American Culture in a Global Perspective
The course examines political, economic and social themes and will emphasize dynamic encounters with ideas from other societies.

POL6800
1–6 Credits
Graduate Independent Study
Independent study in political science at the first-year graduate level.
PO LS7826  
3 Credits  
Politics of Public Policy  
Studies declared intentions and actions of elected officials in meeting human needs and resolving conflicts within society. Emphasizes agenda setting, policy-making models, policy formulation, implementation, evaluation and the role of ideology.

PO LS7830  
3 Credits  
International Organizations  
Typology of organizations: League of Nations to the United Nations, regional organizations, public and private international organizations and transnational organizations.

PO LS7831  
3 Credits  
International Law  
Origin of international law and its relationship to municipal law. Challenges and responses to current issues.

PO LS7832  
3 Credits  
International Problems/Conflict Resolution  
Causes and possible solutions to major international conflicts. Topics will include superpower relations and regional problems.

PO LS7833  
3 Credits  
Modern Warfare/Global Stability  
Impact of insurrection, unconventional war and terrorism on the international community.

PO LS7834  
3 Credits  
Politics of the Global Economy  
A study of the relationship between political motivations and economic actions on the international economy. With emphasis on the interplay between the free market and planned economies.

PO LS7835  
3 Credits  
Geography and World Politics  
Examines the political ramifications of environmental decay, economic and environmental refugees and the utilization of finite resources.

PO LS7851  
3 Credits  
Forces and Issues: Middle East  
Examines the trends and political forces at work in the region, past struggles, current issues and future aspirations.

PO LS7853  
3 Credits  
The New Europe  
The state system of Europe: integration and consolidation since World War II and global implications for East-West relations.

PO LS7854  
3 Credits  
Changing Eastern Europe  
Examines the dissolution of the Communist Bloc and the movement toward new ideologies. Emphasizes nationalism, ethnicity and economic organization.

PO LS7865  
3 Credits  
Comparative Government: Middle East  
Examines diverse systems of government among selected Middle East states. Emphasizes historical development, current ideologies, institutions and practices.

PO LS7867  
3 Credits  
Political and Economic Challenges: Africa  
Examines contemporary issues in Africa. Project trends in political development, human rights and environmental programs.

PO LS7868  
3 Credits  
Terrorism and Insurgency  
Examines the conditions that encourage intervention, clandestine political action, demonstration of force, unconventional war and terrorism. Discusses impact on the global community.

PO LS7871  
3 Credits  
The Modern Asian State  
Examines the development of selected Asian states with an emphasis on historical influences, ideologies, institutions and economic philosophies.

PO LS7874  
3 Credits  
Latin America: New Challenges  
Political responses to the economic and social challenges of modernization. Focuses on democratization efforts and economic cooperation.

PO LS7875  
3 Credits  
Canada, Mexico and U.S.: Perspectives  
Examines the growing interdependence of the North American nations. Emphasizes political, diplomatic and economic interaction and identifies future trends.

Psychology  
There are a variety of psychology programs offered at the Florham Campus, Madison, New Jersey, (see page 220) and the Metropolitan Campus, Teaneck, New Jersey (see page 222). These programs are listed on the following pages by campus.
Psychology • Industrial/Organizational Psychology

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**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.

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.

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.

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.

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**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) 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 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.

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

PSY65300
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

PSY65301
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 management and other aspects of interpersonal relationships within the corporate/business structure. Students learn how to enhance team success as both team leaders and participants. Emphasis is placed on understanding and influencing group and team effectiveness.
Fall

PSY65302
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

PSY65303
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.
Spring

PSY65304
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 counseling techniques. Current topics such as fair employment testing are reviewed.
Spring

PSY65305
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

PSY65306
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 use of in-house psychologist vs. the outside consultant, the use of focus groups and surveys and the process of organizational change.
Fall

PSY65307
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

PSY65308
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

*See Clinical Mental Health Counseling course offerings pages 97-98.
Psychology

PSYC7700
5 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 on-site 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.

Spring

PSYC7745
5 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.

Spring

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

Metropolitan 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 223.

Clinical Psychopharmacology (M.S.) Postdoctoral
See page 227.

Forensic Psychology (M.A.)
See page 229.

General/Theoretical Psychology (M.A.)
See page 232.

Postbaccalaureate Respecialization Program in Psychology
See below.

School Psychology (Psy.D.)
See page 233.

School Psychology (M.A.)
See page 238.

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*</td>
<td>3</td>
</tr>
<tr>
<td>(Undergraduate)</td>
<td></td>
</tr>
</tbody>
</table>

*Students who have already taken PSYC1103 General Psychology can substitute a different undergraduate course.
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 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

To access an application to this program visit the School of Psychology website at http://view2.fdu.edu/academics/university-college/school-of-psychology/ph-d-program-in-clinical-psychology/apply 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 includes statistics and 15 additional credits, preferably introductory psychology, developmental psychology, 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 clinical experience, a personal statement, letters of recommendation and an interview (preferably in person).

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 $41,698.00* per year as of 2019–2020. 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 $5,006.00* per semester for two semesters. Thereafter, students will be required to register for dissertation maintenance ($510.00*) each semester until the dissertation is complete. Students are further charged $260.00* per semester for two semesters of internship.

*M.A.-level courses such as PSYC6111 Theories of Personality, PSYC6114 Psychopathology and PSYC7125 Applied Social Psychology (this list is not exhaustive).

*This fee is a 2019–2020 fee. New tuition and fee charges for 2020–2021 will be announced in the spring of 2020. Please check with the Office of Enrollment Services for current charges.
### Requirements for the Ph.D. Degree

#### 1st Semester
- PSYC6112 Clinical Research Methods and Psychometrics
- PSYC6114 Psychopathology
- PSYC6116 History and Systems
- PSYC6118 Computer Applications in Statistics Lab
- PSYC6132 Developmental Issues in Clinical Psychology
- PSYC6180 First-year Clinical Practicum I

#### 2nd Semester
- PSYC6122 Personality Assessment
- PSYC6131 Behavioral Assessment
- PSYC6133 Intellectual Assessment
- PSYC6160 Teaching Seminar
- PSYC6181 First-year Clinical Practicum II: Ethics
- PSYC6624 Introduction to Psychotherapy

#### 3rd Semester
- PSYC7110 Research Design and Analysis I
- PSYC7115 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)
- PSYC9180 Fourth Year Clinical Practicum I (suggested)

#### 8th Semester
- PSYC9111 Dissertation (Clinical Psychology)
- PSYC9181 Fourth Year Clinical Practicum II (suggested)

#### 9th Semester
- PSYC9112 Dissertation Maintenance (Clinical Psychology)
- PSYC9113 Internship (Clinical Psychology) — fall

#### 10th Semester
- PSYC9112 Dissertation Maintenance (Clinical Psychology)
- PSYC9113 Internship (Clinical Psychology) — spring

### Advanced Special Topics in Clinical Psychology
- PSYC8114 Neuropsychology
- PSYC8127 Clinical Child Psychology
- PSYC8145 Advanced Cognitive Behavioral Therapy
- PSYC9143 Advanced Psychodynamic Psychotherapy
- PSYC9145 Seminar in Clinical Psychology
- PSYC9160 Advanced Personality Assessment

### 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: PSYC7230 Forensic Assessment and Prediction and PSYC7235 Criminal Responsibility and Competency (a third elective 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 of 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 interrater 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 SPSS.

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 consideration 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 Rorschachs.

PSYC6131
1.5 Credits
Behavioral Assessment
Assumptions and principles of behavioral assessment are covered with a focus on behavioral-assessment methods and case formulation. Specific methods are taught such as interviewing, observation, self-monitoring, questionnaires, psychophysiological 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 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.

PSYC6624
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. SPSS 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
5 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
5 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. SPSS 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.

PSYC7133
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.

PSYC8181
3 Credits
Third-year Clinical Practicum II
Therapy, assessment and consultation at an advanced level.
9th Semester

PSYC8112
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

PSYC8112
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.

Advanced Special Topics in Clinical Psychology

PSYC8114
3 Credits
Neuropsychology
Introduction to clinical neuropsychology. Review of functional neuroanatomy, basic neurological 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.

PSYC9123
3 Credits
Family Therapy
Interventions with couples and families. Assessment through genograms. Exploration of different theoretical models of family therapy, with emphasis on systems approaches.

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

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 nonmatriculated 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, licensure as a health care provider and the permission of the program’s academic director.
Clinical Psychopharmacology

Requirements for the Master of Science degree

1. Satisfactory completion of a minimum of 30 graduate credits in the courses approved for participants in this program.

Required Courses

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC7910</td>
<td>Biological Foundations of Clinical Psychopharmacology I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7915</td>
<td>Biological Foundations of Clinical Psychopharmacology II</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7920</td>
<td>Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7925</td>
<td>Neuropharmacology</td>
<td>3</td>
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<tr>
<td>PSYC7930</td>
<td>Clinical Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7935</td>
<td>Professional Issues and Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7940</td>
<td>Treatment Issues in Clinical Psychopharmacology: Affective Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7945</td>
<td>Treatment Issues in Clinical Psychopharmacology: Psychotic Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7950</td>
<td>Treatment Issues in Clinical Psychopharmacology: Anxiety Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7955</td>
<td>Treatment Issues in Clinical Psychopharmacology: Other Disorders</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC7960</td>
<td>Clinical Psychopharmacology Practicum</td>
<td>0</td>
</tr>
</tbody>
</table>

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. 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

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<tr>
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<tbody>
<tr>
<td>PSYC7910</td>
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<td>3</td>
</tr>
<tr>
<td>PSYC7915</td>
<td>Biological Foundations of Clinical Psychopharmacology II</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Issues and Practice Management

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

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

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

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

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 major depression and the affective elements of bipolar disorder. Issues of diversity and development are considered.
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.

PSYC7955
3 Credits
Treatment Issues in Clinical Psychopharmacology: Other Disorders
This course addresses issues of diagnosis/differential diagnosis; etiology/biological basis of a variety of disorders; and psychopharmacological treatment options, including mechanism of action, side effects, adverse reactions, polypharmacy, drug interaction and patient education. Disorders covered include eating disorders, chronic pain, sleep disorders, substance abuse and childhood disorders.

Electives
PSYC7960
0 Credits
Clinical Psychopharmacology Practicum
Field training in psychopharmacological prescriptive practice for licensed psychologists under the supervision of a licensed physician.

PSYC7961
4 Credits
Emergency Medicine Rotation
Full-time practicum experience in emergency medicine. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7962
4 Credits
Family Medicine Rotation
Full-time practicum experience in family medicine. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7963
4 Credits
Geriatrics Rotation
Full-time practicum experience in geriatrics. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7964
4 Credits
Internal Medicine Rotation
Full-time practicum experience in internal medicine. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7965
4 Credits
Obstetrics and Gynecology Rotation
Full-time practicum experience in obstetrics and gynecology. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7966
4 Credits
Pediatrics Rotation
Full-time practicum experience in pediatrics. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7967
4 Credits
Psychiatric Rotation
Full-time practicum experience in psychiatry. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7968
4 Credits
Surgery Rotation
Full-time practicum experience in surgery. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

PSYC7969
4 Credits
Elective Rotation
Full-time practicum experience in an elective topic in medicine not covered in courses PSYC7961 through PSYC7968. This practicum lasts a minimum of 1.5 months, for a total practicum experience of 14 months.

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 of up to 6 credits.
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 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**

**First Trimester (Fall)**
- PSYC6114 
  Psychopathology
- PSYC6121 
  Statistics and Research Methods
- PSYC6230 
  Introduction to Forensic Psychology
- PSYC6231 
  Psychological Bases of Criminal Behavior

**Second Trimester (Spring)**
- PSYC6130 
  Interviewing Techniques
- PSYC7250 
  Forensic Assessment and Prediction
- PSYC7235 
  Criminal Responsibility and Competency
- Forensic Psychology Elective

**Third Trimester (Summer Session)**
- PSYC6227 
  Clinical Practice in Forensic Context
- PSYC7243 
  Special Topics in Forensic Psychology

**Fourth Trimester (Fall)**
- PSYC7234 
  Ethical Issues in Forensic Practice
- PSYC7240 
  Externship in Forensic Psychology

All students are required to take and pass two comprehensive examinations (psychopathology and forensic psychology) at the conclusion of their course work, and only students who pass the comprehensive examinations 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 (3 credits). These 3 credits may be substituted for one elective.

Note: Instructor approval required for students who are not in the M.A. in forensic psychology program or the B.A./M.A. accelerated program.

**Course Offerings**
Other psychology courses are described on pages 225-227, 252-253 and 256-258.

**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 or the B.A./M.A. accelerated program.

**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 or the B.A./M.A. accelerated program.

**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, psychodiagnosics and antisocial behavior. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program or the B.A./M.A. accelerated program.

**PSYC7230**
3 Credits
**Forensic Assessment and Prediction**
Review of relevant measures used in forensic assessment — assessment of risk of violence, psychopathology, malingering, personal injury, competency, disability and child custody. A focus of the course is on the heuristics/biases of risk-related decision-making under uncertainty. Note: Instructor approval required for students who are not in the M.A. in forensic psychology program, the 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 or the B.A./M.A. accelerated program.
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, the forensic B.A./M.A. accelerated program or the clinical psychology Ph.D. forensic track.

**Psychology • Forensic**

PSYC7240  
3 Credits  
**Externship in Forensic Psychology**  
A supervised field 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 is 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.

**Electives**

PSYC6228  
5 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 or the B.A./M.A. accelerated program.

PSYC6232  
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.

PSYC6234  
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.

PSYC7232  
3 Credits  
**Psychological Profiling**  
Examines crime and the criminal mind from the perspective of psychological profiles, with an emphasis on phenomenology and psychopathology, as well as prognostication of criminal behavior. A major focus is placed on profiling through the presentation of case material and findings, with an emphasis on the homicidal offender.

PSYC7233  
3 Credits  
**Evaluation and Treatment of Alcohol and Substance Abuse Disorders**  
This course presents theory and research on the development, assessment and treatment of alcohol and substance-abuse disorders (drug abuse and gambling), particularly as they relate to criminal behavior.

PSYC7236  
3 Credits  
**Forensic Scientific Evidence**  
This course delves into the nature of scientific evidence, validity, reliability and admissibility of evidence in court and the role of science in the courtroom, including the use of science to bias, prejudice or mislead.

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. Well-known 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, interviewing 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 on 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....................5

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 225–227. 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

PSYC6100
3 Credits
Psychological Research in Substance Use and Abuse
This course will review major psychology theories and recent empirical findings regarding the use and abuse of various illicit and licit substances, with an emphasis on alcohol use. These models will provide a framework for understanding the posited antecedent and vulnerability factors that contribute to the development of normative and maladaptive substance abuse. Special emphasis is given to periods of high-risk such as young adulthood. Prevention and treatment approaches will also be covered, focusing on empirical evidence for their efficacy.

PSYC6109
3 Credits
Social Psychological Applications
This course focuses on applications of social psychological theory and research techniques in mental health domains. Topics include, but are not limited to, attitude formation, attitude change, prejudice and discrimination, altruism and attribution theory.

PSYC6111
3 Credits
Theories of Personality
Overview of nature of personality theory; summaries of theories of personality selected because of influence on clinical practice; psychological research. Freud, Adler, Jung, Murray, G.W. Allport, Rogers, Maslow, Fromm; some existentialists and some social, behavioral or learning approaches are included.

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.

232
PSYC6115
3 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.

PSYC6121
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
5 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 psychological 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 235) 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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<tr>
<th>Course</th>
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<tr>
<td>PSYC6111</td>
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<tr>
<td>Statistics and Research Methods</td>
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**Second Semester**

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**Third Semester**

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**Fourth Semester**

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**Summer**

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**Fifth Semester**

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**Sixth Semester**

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**Seventh Semester**

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**Eighth Semester**

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**Note:** PRAXIS Exam must be taken prior to graduation.

**Course Descriptions**

See “Course Offerings,” pages 236–238.

*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 certified 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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<td>PSYC7651</td>
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Spring Semester

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<td>PSYC7146</td>
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<td>Issues and Techniques in Research and Evaluation II</td>
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<td>Seminar in Child/Adolescent Intervention</td>
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<td>Advanced Consultation for School Psychologists</td>
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Second Year

Fall Semester

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Credits

PSYC8130  Pediatric Psychology.......................... 3
PSYC9125  Advanced Practicum I (School Psychology)........ 3

Spring Semester

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<td>Administration and Supervision in School Psychology</td>
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Summer Semester

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Third Year

Fall Semester

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Spring Semester

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Summer Semester

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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 141–154.
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 225–227 and 232–235. 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, internationalization 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 WJIV, 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.

Fall

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 it affects 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, PSYC8112
3 Credits Each Semester
Dissertation Seminar (School Psychology)
This two-semester 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.

Fall, 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, antidepressotics, anticonvulsants, 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-heath impact of physical, developmental and medical disorders on the child, the family and schooling.

Fall

PSYC8132
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.

Fall

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.

Spring

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 psychoeducational 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

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.

Spring

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 (School Psychology)
Continuation of the research project required of all doctoral candidates in school psychology.

Fall, Spring

PSYC9123
3 Credits
Family Therapy
Interventions with couples and families. Assessment through genograms. Exploration of different theoretical models of family therapy, with emphasis on systems approaches.

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.

Fall

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).

Spring

PSYC9140
3 Credits
Internship (School Psychology)
This course consists of a full-time internship in school psychology for students in the Psy.D. in school psychology program.

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.

Fall, Spring, Summer

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, Summer
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. Completed applications for admissions are due by March 1 for September admission.
2. Applicants must hold a bachelor’s degree from an accredited college or university.
3. Applicants for the Master of Arts and certification in school psychology must submit Graduate Record Examinations (GRE) scores for the General Test. (The GRE General Test requirement is waived for applicants who have completed a master’s degree.) The schedule of testing dates can be obtained from Educational Testing Service, Princeton, N.J., 08540.
4. Applicants must have taken general psychology and statistics, and either child development, experimental psychology, abnormal psychology or theories of personality on either the undergraduate or graduate level.
5. Applicants must submit three letters of recommendation.
6. Applications are carefully reviewed, and group interviews are conducted for those applicants who meet the school’s criteria.

School Psychologists (NASP).

Students are admitted either full time or part time, both requiring the completion of a minimum of two courses per semester. Applications also will be considered from individuals holding a master’s degree in psychology, education or related fields and/or certification in an allied educational area and who wish to obtain certification as a school psychologist. If such applicants meet the academic requirements of the school, a course of study will be determined on an individual basis to meet certification requirements.

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.

Note: For descriptions of education (EDUC) courses, refer to Peter Sammartino School of Education programs, pages 141–154.
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

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC6111 Theories of Personality</td>
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<tr>
<td>PSYC6121 Statistics and Research Methods</td>
<td>3</td>
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<tr>
<td>PSYC6651 Ethics and Professional Practice in Schools</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7819 Introduction to School Learning Problems I</td>
<td>3</td>
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Second Semester

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<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>PSYC6115 Child Psychopathology</td>
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<tr>
<td>PSYC6129 Research Methods and Psychometrics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7122 Developmental Psychology</td>
<td>3</td>
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<tr>
<td>PSYC7820 Introduction to School Learning Problems II</td>
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Third Semester

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<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>EDUC6743 Introduction to Students with Disabilities</td>
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<tr>
<td>PSYC7615 Child Assessment I with Practicum</td>
<td>3</td>
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<tr>
<td>PSYC7815 Child Assessment II with Practicum</td>
<td>3</td>
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<tr>
<td>PSYC8910 School-based Consultation with Practicum</td>
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Fourth Semester

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<tr>
<th>Course Offerings</th>
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<tr>
<td>EDUC6702 Curriculum and Instruction:</td>
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<tr>
<td>Theory and Practice</td>
<td>3</td>
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<tr>
<td>PSYC7825 Child Neuropsychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC8725 Prevention and Intervention with Children</td>
<td>3</td>
</tr>
<tr>
<td>PSYC8815 Child Assessment III with Practicum</td>
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</table>

Fifth Semester

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC7721 Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>PSYC8922 Externship in School</td>
<td>3</td>
</tr>
<tr>
<td>PSYC9110 School-Community Mental Health</td>
<td>3</td>
</tr>
</tbody>
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Sixth Semester

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<tr>
<th>Course Offerings</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC8923 Externship in School</td>
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</table>

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 225–227 and 232–233. 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.

PSYC7615 3 Credits
Child Assessment I with Practicum
Development of skills in objective testing and intellectual assessment, focusing on the WPPSI, K-ABC and Weschler 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.

PSYC7815 3 Credits
Child Assessment II with Practicum
Development of skills in objective testing and intellectual assessment, focusing on the WPPSI, K-ABC and Weschler 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.

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 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, ado-
lescents and their families are reviewed and ana-
yzed.

Note: For descriptions of education (EDUC)
courses, refer to Peter Sammartino School of
Education programs, pages 141–154.

Public
Administration
(M.P.A.)
The School of Public and Global Affairs
offers a curriculum leading to the degree of
Master of Public Administration (M.P.A.).
The school 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 school 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 school 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 at the Florham
Campus, Madison, New Jersey, and the
Metropolitan Campus, Teaneck, New
Jersey; at the Bethune 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; in
Neptune, 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
The School of Public and Global Affairs
offers two certificates within the Master of
Public Administration program: certificate
in global transportation management and
certificate in public management.

Certificates require the completion of
18 credits in the M.P.A. program, and
credits may be applied toward the final
M.P.A. degree. Completed certificates
appear on the student’s transcript.

Specializations
The M.P.A. program offers various
specializations: global affairs, global
transportation management, health care
management, public finance, public
management and public policy.

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

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

Health Care Management
The specialization in health care
management consists of a series of courses
that are designed, in combination with the
M.P.A. core curriculum, to meet the
accreditation standards of the Association
of University Programs in Health
Administration. Students in the health care
management concentration take course
work such as PADM7731 Introduction to
Health Systems and Policy, PADM7732
Health Finance and Control Systems,
PADM7734 Managing the Continuum of
Care and PADM7791 Global Health
Issues.
Public Finance
This specialization concentrates on the tools necessary to understand, run and supervise finance operations in public and nonprofit organizations. Courses include PADM7741 Financial Management in State and Local Government, PADM7762 Public Purchasing, PADM7795 Finance and Accounting for Public Administration and PADM7797 Corporate Finance for Public Administrators.

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

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

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.
4. 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.)

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

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
2. Electives:
   - The M.P.A. elective course offerings are designed to offer students the opportunity to pursue in-depth study in global affairs, global transportation management, health care management, public finance, public management and public policy.
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.

Students with weak backgrounds in government, communication skills, computer literacy or other critical areas may be required to take additional work beyond the 39-credit minimum.

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
School of Public and Global Affairs

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

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
Public Administration

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 policy-making at all levels of government with an emphasis on skills that can be used by managers on a daily basis. Prerequisite: PADM610
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.

PADM6606
3 Credits
Analytic Methods/Managerial Decision Making
The course provides an overview of the decision-making tools employed in program management and evaluation. The course begins with an overview of the principles of research design focusing on the basic methods of problem diagnosis and measurement (interviews, surveys, focus groups, archival analysis). The second part of the course emphasizes the principles and tools of program evaluation. The course develops the analytical and critical-thinking skills of students to solve common management problems.

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 policymakers. 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.

PADM6686
3 Credits
Women in Leadership
A seminar exploring the breadth and depth of women's political, economic and cultural roles, deprivations, contributions and leadership in all corners of the globe.

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. Prerequisite: 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 coursework 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

PADM6803
3 Credits
Elder Care: Legal Issues
Examines recent legal trends in the health-care environments of the elderly and the impact of those legal trends on policy and public administration.

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

PADM6815
3 Credits
Public Policy Research
Students engage collectively in a substantive research project focused on a current social and political problem, identifying both causal and contributing factors and producing a publishable report and a press release. This interactive course requires research, demands individual contributions and interactive exchange and facilitates collaboration in the analysis of a current issue while offering recommendations for improving the quality of policy and administration in the public and nonprofit sectors.
PADM6816 3 Credits
World Heritage Law and Policy
Practical thinking about ideas of “World Heritage” and sustainable development including religion, environment, warfare, destruction and ruins and rebuilding initiatives. Topics include: conservation law; case studies from the Arabian Peninsula, Asia and East Africa; heritage sites for tourism; transportation; trade; pilgrimages; movable collections; museums; parks; fixed relics; foods; and sounds, sights and smells in the natural landscape. A field project challenges participants to match theory with project-based goals to contribute to a digital archive or drafted policies to conserve and preserve UNESCO world heritage sites.

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.

PADM7712 3 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 for diagnosing organization 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 his or her organization. Prerequisites: PADM6600 Public and Nonprofit Management and PADM6604 Human Resources Management.

PADM7713 3 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.

PADM7714 3 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, judicial 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.

PADM7715 3 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.

PADM7716 3 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.

PADM7717 3 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.

PADM7718 3 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.

PADM7721 3 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.

PADM7724 3 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.

**PADM7726**  
3 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.

**PADM7730**  
3 Credits  
**Health Care Project Management**  
Integration of the essential components of project planning and management with health care information systems for health care leaders. The course outlines the process for developing, implementing and evaluating project plans as well as integrates communication and project life-cycle theory.

**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.  
*Fall*

**PADM7732**  
3 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*

**PADM7733**  
3 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 medical, mental health and social support needs of patients on an ongoing basis. Financial, marketing, human resources and legal/ethical issues also are 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 PADM7735 Comparative Health Systems.)  
*Spring*

**PADM7738**  
3 Credits  
**Contemporary Health Administration Issues**  
Course content concentrates on the technical, integrative and administrative aspects essential to the medical, social service and related services and to the needs of patients and clients in those areas.

**PADM7739**  
3 Credits  
**Clinical Trials**  
Principles of clinical trial design, including determination and evaluation of study objectives, commonly used methodologies of study design, and the ethical, legal, statistical and sociological and epidemiological considerations that play a role in design of clinical protocols.

**PADM7740**  
3 Credits  
**State Local Government Organization and Management**  
This course provides an overview of the basic functions of state and local government in conjunction with a detailed discussion of the tools and techniques of effective state and local government management and administration. A number of topics will be covered including the challenges posed by fiscal and resource scarcity, effective service delivery, privatization, downsizing organizational productivity and conflict management, among others.

**PADM7741**  
3 Credits  
**Financial Management in State and Local Government**  
This course is an overview of the principles of financial management in state and local government. Subjects include the principles of taxation, revenue sources and forecasting, capital budgeting, debt management, cash management, public purchasing and pension fund management, among others.
PADM7742
3 Credits
**Government Personnel Administration**
The course presents an overview of the management of human resources in state and local government. The course will present an overview of the tools and techniques of personnel management (job analysis, job evaluation, recruitment, selection, affirmative action) along with the basics of performance management and employee development.

PADM7743
3 Credits
**Collective Bargaining**
This course is a comprehensive overview of the principles and practice of collective bargaining. Subjects covered include contract-negotiation techniques, contract administration, grievance procedures, dispute-resolution techniques and state and national labor laws. Special emphasis will be placed on New Jersey and the critical issues and problems that affect labor management relations.

PADM7744
3 Credits
**Legal Environ State/Local Government**
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.

PADM7745
3 Credits
**Ethical Issues in State and Local Government**
This course presents an overview of the diverse ethical issues and challenges that state and local government administrators frequently face. A framework for the identification and resolution of ethical conflicts and issues is presented. Ethical issues explored include financial and non-pecuniary conflicts of interest, whistle-blowing, unlawful discharge and sexual harassment, among others.

PADM7747
3 Credits
**Public Sector Communications**
This seminar focuses on students’ lifelong professional development, including the design of a five-year plan for the individual student’s personal and career development. Topics include identification of long- and short-term personal and career objectives, analysis of professional competencies and skills and development of an individual action plan.

PADM7749
3 Credits
**Development of Global Transportation System**
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.

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.

PADM7763
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.

PADM7771
3 Credits
**U.S. Transportation Systems**
This seminar examines land, sea, air and space as modes for logistical displacement from the late 18th century to the present. All major modalities are surveyed: vehicle, aircraft, ship and rail as well as all major transportation organizations with an emphasis on why these companies were started, who started them, how they were financed and marketed and the cause of their eventual failure.

PADM7772
3 Credits
**Public Policy and Transportation Issues**
Demand for better transportation modalities have been impacted by population changes. As the population moves from urban to suburban areas, controversy develops as individuals desire better systems to allow for faster commutes. Public policy issues arise as governments attempt to please the interests of those who want better transportation with those who want to preserve open spaces. Additionally, issues arise with air traffic and trains that impact and are impacted by public policy. This course will investigate the area of transportation and public policy making, and explore how both the needs of the public and those of the public officials are impacted by the processes.

PADM7773
3 Credits
**Physical Distribution Systems**
The course is a study of the aspects of security 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.

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, green fuels, nuclear technology and natural fuels (wind, solar, etc.). Future forecasts will also be discussed and analyzed.

**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 breakeven 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.

**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.

**PADM7814**
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.

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**Public Health (M.P.H.)**
The Master of Public Health (M.P.H.) is a 45-credit online degree program. The M.P.H. curriculum consists of a didactic core with practicum and capstone (30 credits) and specialization track electives (15 credits). Students may select a **generalist track** and pursue elective courses in any combination from the specialization track areas: health analytics, health policy or population health in addiction and recovery. The courses are offered as accelerated eight-week online modules, and the program can be completed in 18 months.

Core courses include PUBH6001 Foundations and Issues of Public Health, PUBH6002 Introduction to Biostatistics and Data Analysis, PUBH6003 Public Health Management and Policy, PUBH6004 Fundamentals of Epidemiology, PUBH6005 Principles of Environmental Health, PUBH6006 Social and Behavioral Determinants of Public Health, PUBH6101 Public Health Leadership 101 and PUBH6102 Ethics in Health Care Research, with capstone and practicum as culminating experience.

Following completion of the core courses, students will have an option of pursuing one of the four specialization tracks: generalist, health analytics, health policy or population health in addiction and recovery.

**Generalist Track:** This specialization equips public health professionals with the general knowledge and skills for effective and productive public-health practice at the professional graduate level. In addition to core courses, students will select any combination of five elective courses (15 credits) from the additional three tracks.

**Health Analytics Track:** Upon completion of the core courses, students will focus on the advanced biostatistics, data management, health informatics, predictive analytics, with specialized practicum and capstone seminar.*

**Health Policy Track:** Upon completion of the core courses, students will study the politics and practice of public health and health policy, economic and social determinants of health policy, health disparities and culture, comparative health

*Under development. For more information go to https://view2.fdu.edu/academics/pharmacy/academics/mph/.
care systems, with specialized practicum and capstone seminar.*

**Population Health in Addiction and Recovery Track:** Upon completion of the core courses students will study the issues of addiction and recovery, focusing on tobacco, alcohol and drug use, on mental-health advocacy, issues of treatment and recovery, with specialized practicum and capstone seminar.*

Regardless of the concentration, the M.P.H. curriculum focuses on the inclusion of active-learning pedagogies by placing the student in the center of learning through small group activities, case-study analyses, flipped classroom and social constructivism methodologies and integrated care groups that are focused on interprofessional education alongside students in pharmacy, nursing, psychology and other health-profession programs in the future. The goal is to educate current and future health professionals who are focused on collaboration, interprofessional communication, respect for other professions and ethical delivery of patient centered, team-based decision-making practice.

**Summary**

With the changing and unstable climate of health-care delivery, the great increase in health disparities and access to care, and the increase of technology and data analytics as a part of the health care decision-making process, there is perhaps no greater time of need for graduates trained in public health disciplines. The Centers for Disease Control cites a significant shortage of public health workers over the next several years, with many of its estimates projecting that shortage to exceed 250,000 by 2020. Overall, the Bureau of Labor Statistics projects significant growth and increased demand for all health profession areas, including a projected 16-percent increase in demand for health educators, a 20-percent increase for health service managers and a 14-percent increase in demand for biostatisticians. There is also a projection of a significant exodus of the workforce from this field, as many workers trained in public health are nearing retirement age. In fact, several studies indicate that schools of public health will need to train greater than three times the current number of graduates to keep up with the demand for jobs and avoid a public health crisis.

The Master of Public Health program provides an opportunity for students in other health-profession programs to pursue a concurrent degree in public health. There is tremendous opportunity for pharmacists, nurses and other health-care professionals to enter into new scopes of practice through the additional knowledge and credentialing. As the School of Pharmacy and Health Sciences continues to promote the role of many different health professionals as advocates for and implementers of many public health initiatives, creating specialists who obtain both degrees and bear both skill sets will provide both a powerful differentiator for students and an opportunity for the advancement of the profession.

There is a great opportunity for significant synergy with the School of Public and Global Affairs, leveraging strengths of both subject-matter experts and its relationships with global partners, including the United Nations and the World Health Organization. Furthermore, the United Nations Pathways, organized by the Office of Global Learning, provides multiple U.N. programs for the FDU community. In addition, focused public-health programming and experiences would provide a meaningful learning opportunity for students pursuing their degree within this program. Similarly, the M.P.H. program also effectively complements the existing offerings within the School of Pharmacy and Health Sciences, specifically its Master of Health Science offerings in health informatics, clinical research administration and regulatory sciences, each of which have significant public health components that would provide strength of expertise and economy of scale.

This public health program is offered online by the School of Pharmacy and Health Sciences, Florham Campus, Madison, New Jersey.

**Admissions Criteria**

The credentials required for admission to the Master of Public Health degree program as a matriculated student include the following:

1. A bachelor’s degree from an accredited college or university with a minimum cumulative grade point ratio (GPR) of 3.00. (Applicants with a GPR of less than 3.00 may be admitted as matriculated students on probation.)
2. The GRE is recommended, but not required.
3. Official undergraduate and graduate transcripts from all colleges and universities attended (official transcripts must be evaluated for grade equivalency, if international applicant).
4. Two letters of recommendation (from a professor, employer or professional in the field familiar with the student’s strengths and abilities).
5. Official test scores (GRE, TOEFL or other, if international applicant).
6. Résumé or curriculum vitae.

**M.P.H. Program Mission, Goals and Student Learning Objectives**

The program’s mission is to educate future public health leaders to promote, enhance and improve the health and wellness of individuals and populations in local, national and global settings. In alignment with the University’s global mission of training world citizens, the M.P.H. program will focus on approaches that improve health, increase access to health care as ethical and social responsibility and minimize and eliminate health disparities through evidence-based interventions and policy efforts.

**Instructional Goals**

1. Create and maintain a high-quality, best-in-class online program that attracts both high-achieving students and excellent faculty with diverse interests, backgrounds and expertise to educate current and future health professionals with a focus on collaboration, respect and ethics through student-centered, interprofessional, experiential and self-reflective pedagogies.
2. Provide students with a variety of learning opportunities in order to develop public-health practitioners with a global perspective who lead and advocate both globally and locally.

*Under development. For more information go to https://view2.fdu.edu/academics/pharmacy/academics/mph/*
Service Goals
1. Address the key topic areas of public health by bringing together educators, researchers and experts from within the University and across the state to build relationships, facilitate discussions and develop best-practice approaches for innovative and evidence-based interventions to improve local and global public health.
2. Work to reduce health disparities and inequalities to improve the health of the populations served.

Research Goal
Provide opportunities for faculty and students to engage in scholarly research, dissemination and communication, and evidence-based practices to advance public health knowledge locally and globally.

Student Learning Objectives
Upon completion of the program, regardless of the specialization track, students will be able to:
1. Explain public health history, philosophy and values.
2. Identify the core functions of public health and its 10 Essential Services.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health.
4. List major causes and trends of morbidity and mortality in the U.S. or other communities relevant to the school or program.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge.
7. Explain the effects of environmental factors on a population’s health.
8. Explain biological and genetic factors that affect a population’s health.
9. Explain behavioral and psychological factors that affect a population’s health.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities.
11. Explain how globalization affects global burdens of disease.
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health).

Requirements for the Master of Public Health Degree
1. All students enrolled in the M.P.H. program are required to graduate within five years. Application for extension is subject to program/school approval.
2. The students are required to maintain a minimum overall grade point ratio (GPR) of 3.00 and must not earn more than one “C” grade (C or C+), throughout the course work. Students who receive two or more “C” grades will be subject to dismissal.

Core Courses (30 credits)

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PUBH6001</td>
<td>Foundations and Issues of Public Health</td>
<td>3</td>
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<tr>
<td>PUBH6002</td>
<td>Introduction to Biostatistics and Data Analysis</td>
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<tr>
<td>PUBH6003</td>
<td>Public Health Management and Policy</td>
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<tr>
<td>PUBH6004</td>
<td>Fundamentals of Epidemiology</td>
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<tr>
<td>PUBH6005</td>
<td>Principles of Environmental Health</td>
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<tr>
<td>PUBH6006</td>
<td>Social and Behavioral Determinants of Public Health</td>
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<tr>
<td>PUBH6101</td>
<td>Elective 1 – Public Health Leadership</td>
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<tr>
<td>PUBH7501</td>
<td>Public Health Practice and Leadership</td>
<td>3</td>
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<tr>
<td>PUBH7505</td>
<td>Elective 2 – Interprofessional Education and Practice (IPE and IPP)</td>
<td>3</td>
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<tr>
<td>PUBH7901</td>
<td>Public Health Capstone</td>
<td>3</td>
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Specialization Courses (15 credits)

Specialization Tracks

Generalist (45 credits)
Core courses (30 credits) plus five courses from any listed within the below tracks (15 credits)

Health Analytics (45 credits)*
Core courses (30 credits) plus specialization courses (15 credits)

Health Policy (45 credits)*
Core courses (30 credits) plus specialization courses (15 credits)

Population Health in Addiction and Recovery (45 credits)*
Core courses (30 credits) plus specialization courses (15 credits)

Credits

*Under development. For more information go to https://view2.fdu.edu/academics/pharmacy/academics/mph/.
**Public Health**

**School of Pharmacy and Health Sciences**

**PUBH6001**

3 Credits  
**Foundations and Issues of Public Health**

This introductory course into the program guides students through the history, philosophy, scientific and ethical issues and practices of public health. The course broadly covers the core disciplines, function, infrastructure and essential services in public health. Students will explore how the principles and practices of public health are applied in the local, state, national and global context.

**PUBH6002**

3 Credits  
**Introduction to Biostatistics and Data Analysis**

This course presents an introduction to the theory and most commonly used statistical methods in public health, epidemiological and experimental research. Students will learn how to select the most appropriate methods, how to apply selected methods to actual data and how to analyze and interpret computer output from a commonly used statistical package. Students will apply this knowledge to critique and interpret statistical concepts in the literature.

**PUBH6003**

3 Credits  
**Public Health Management and Policy**

This course is designed to provide students with knowledge and skills for better understanding of the U.S. health care system organization, financing and policy. It provides introduction to health policy and management, a multidisciplinary field of inquiry and practice concerned with the delivery, quality and costs of health care for individuals and populations. Students will engage in discussion about multiple dimensions of the policy-making process, including the roles of ethics and evidence. They will learn how to analyze and advocate for political, social or economic policies and programs that will improve health in diverse populations and be able to evaluate policies for their impact on public health and health equity. This foundational course is designed for anyone working or interested in working in government agencies, nonprofits, private health-care organizations or any entity focused on public health. Prerequisite: PUBH6001 Foundations and Issues of Public Health.

**PUBH6004**

3 Credits  
**Fundamentals of Epidemiology**

This course introduces the descriptive and analytic epidemiologic methods in studying disease outbreaks, distribution and determinants of health and disease in populations. It focuses on the application of knowledge and skills necessary to research, interpret and utilize epidemiologic literature in public-health practice. Students learn the history of public health, how to describe outbreaks and what the uses of epidemiology in public health are. Prerequisite: PUBH6001 Foundations and Issues of Public Health.

**PUBH6005**

3 Credits  
**Principles of Environmental Health**

The course is designed to provide graduate students with an introduction and overview of the key areas of environmental health. Using the perspectives of the individual, population and community, this course will examine factors associated with the development of environmental health problems while providing an opportunity for students to think critically about solutions to the complex issues, considering environment as one of the determinants of health and/or diseases. Prerequisite: PUBH6001 Foundations and Issues of Public Health.

**PUBH6006**

3 Credits  
**Social and Behavioral Determinants of Public Health**

The aim of this course is to introduce the core concepts of social and behavioral determinants and how they influence the health of individuals, communities and populations. Students will analyze and compare theories and relevant research to develop understanding of those as they contribute to disease prevention and health promotion. Prerequisite: PUBH6001 Foundations and Issues of Public Health.

**PUBH6010**

3 Credits  
**Elective 1 – Public Health Leadership 101**

The course introduces students to major theories and concepts of leadership, and ways of applying those to public-health issues and contexts. Students will explore models of leadership within current public health contexts at the individual, team, organizational and community levels with an emphasis on case studies and real-world analysis. The course develops leadership skills and planning for each student’s ongoing development as a leader in health care.

**PUBH7101**

3 Credits  
**Issues of Addiction and Recovery**

**PUBH7102**

3 Credits  
**Alcohol, Tobacco and Drug Use: Populations and Issues**

**PUBH7103**

3 Credits  
**Mental Health Advocacy**

This course addresses the role of public policies in influencing the public’s health; frameworks for analyzing public health policies; the role(s) and limitations of public health worker in influencing public policy for health; advocacy as a strategy for achieving social change; strategies to promote and sustain policies through legislative processes; and public health leadership principles and practices. Prerequisites: PUBH6001 Foundations and Issues of Public Health and PUBH6004 Fundamentals of Epidemiology.

**PUBH7104**

3 Credits  
**Issues of Treatment and Recovery**

**PUBH7105**

3 Credits  
**Addiction and Recovery Practice and Leadership**

**PUBH7201**

3 Credits  
**Advanced Biostatistics, Data Management and Analysis**

**PUBH7202**

3 Credits  
**Population Health Research Methods**

This course provides the fundamentals of research design, methods and data collection. It serves as an introduction to quantitative, qualitative, mixed methods and community-based participatory approaches to public health research. Students will discuss the strengths and weaknesses of each design and have hands-on experience with a number of designs. The emphasis is on the critical review of published research, to prepare students to evaluate all aspects of a research study in order to be confident and careful consumers of research and build skills for conducting independent research. Prerequisite: PUBH6001 Foundations and Issues of Public Health.

**PUBH7203**

3 Credits  
**Data Management in Public Health Systems**

In this course students will learn about the information systems most commonly used by

*Course under development. For more information go to https://view2.fiu.edu/academics/pharmacy/academics/mph/.
public health agencies, such as health registries, health information exchange platforms, regulatory submission systems, surveillance and adverse event reporting and the types of data they contain. Benefits and challenges of these systems, as well as data-integration techniques will be covered. Prerequisites: PUBH6001 Foundations and Issues of Public Health and PUBH7202 Population Health Research Methods.

PUBH7204
3 Credits
**Predictive Analysis and Determinants of Health**

PUBH7205
3 Credits
**Health Analysis Practice and Leadership**

PUBH7301
3 Credits
**Politics and Practice of Public Health and Health Policy**
Successful implementation of public health programs has a foundation in understanding policy, including how it is made, influenced and shaped. Whether it is vaccinations, curbing obesity or even increasing funding, any public health issue always has politics around it. It is thus essential for a public health practitioner to understand how such topics can be influenced, and by whom. This course will focus on policy strategy, formulation and implementation both in the United States and at a global level abroad. Prerequisites: PUBH6001 Foundations and Issues of Public Health and PUBH6003 Public Health Management and Policy.

PUBH7302
3 Credits
**Economic and Social Determinants of Health Policy**

PUBH7303
3 Credits
**Health Disparities and Cultural Issues**

PUBH7304
3 Credits
**Comparative Health Care Systems**
This course provides a comprehensive overview of the structure and operations of the United States health-care delivery system in comparison to health-care systems in other countries. Major forces and trends that are likely to shape the external environment and linkages among industry stakeholders are identified and examined both locally and in a global context. 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. Prerequisites: PUBH6001 Foundations and Issues of Public Health and PUBH6003 Public Health Management and Policy.

PUBH7305
3 Credits
**Health Policy Practice and Leadership**

PUBH7501
3 Credits
**Public Health Practice and Leadership**
As a part of the culminating experience in the program, this 200-hour field practicum/placement at a local/global public health organization should be a service-learning practical experience involving health promotion, health advocacy, health communication skills and competencies and the collection and analysis of data, as appropriate under the supervision of a public health professional to determine or assess a response to an actual public health challenge. A practicum report is completed and presented in the form of an oral presentation and scientific poster.

PUBH7505
3 Credits
**Elective 2 – Interprofessional Education and Practice (IPE and IPP)**
In this course the public health students will engage in interprofessional educational experience with students from at least one other health profession. All students will be learning with and from each other about ethics and values, roles and responsibilities, teamwork and communications in the health-care setting. The case studies will be examined, and the decision-making process that providers and patients engage in are analyzed in this interdisciplinary, interprofessional context.

PUBH7901
3 Credits
**Public Health Capstone**
This capstone course is part of the culminating academic experience in the M.P.H. program. Students are expected to synthesize, integrate and apply skills and competencies acquired through the program of study to a public health problem that approximates a professional practice experience. The project has two components: written paper/proposal and oral presentation. The course is typically completed in the last semester of the program, usually in conjunction with the completion of a fieldwork practicum experience. Prerequisite/Corequisite: PUBH7501 Public Health Practice and Leadership.

*Course under development. For more information go to https://view2.fdu.edu/academics/pharmacy/academics/mph/.

School Psychology (Psy.D.)

School Psychology (M.A.)
See Psychology, School Psychology, page 238.
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 Capstone for Service, Innovation and Leadership; 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 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 from an accredited undergraduate institution. (No GMAT or GRE test score is required.)

2. Transcripts from all undergraduate, graduate and postgraduate studies.

3. A résumé, which includes goals for a career in service leadership.

4. A completed application.

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 last term of study in the program as a capstone requirement. This paper 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:

- MSSIL7001 Introduction to Graduate Studies and Research*........3
- MSSIL7003 Current Concepts of Leadership in the Service Industry........3
- MSSIL7004 Service Management.........................................................3
- MSSIL7005 Managing Service Industry Financial Systems........................3
- MSSIL7006 Human Resource Management and Development in the Service Industry.......................3

*Must be taken in the first semester.

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.

- MSSIL6001 Civil Law and the Service Industry........3
- MSSIL6002 Accounting for Service-industry Administrators................3
- MSSIL6003 Distribution Systems Management..................3
- MSSIL6004 Global Service Industry Business Management..................3
- MSSIL6005 Organizational Behavior......................................................3
- MSSIL6006 Strategic Processes in Service Firms..................3
- MSSIL6007 Curriculum and Instruction for Service-industry Professionals...............3

Total......3

Total Program......50

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. Guidelines 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
School of Administrative Science

Core Course Requirements

MSSIL6100
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.

MSSIL7001
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 (MSSIL6100) 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.

MSSIL7003
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.

MSSIL7004
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.

MSSIL7005
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.

MSSIL7006
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.

MSSIL7007
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.

MSSIL7008
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.

MSSIL7009
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.

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.

MSSIL6001
3 Credits
Civil Law and the Service Industry
This course provides an overview of tort and civil law oriented to service-industry contexts.

MSSIL6002
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.

MSSIL6003
3 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.
MSSIL6004
3 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, finance, service delivery, marketing and government affairs.

MSSIL6005
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.

MSSIL6006
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.

MSSIL6007
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.

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’s-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 Examinations (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
A. Required Courses

All students enrolled in the M.S.A. program must complete the following:

- 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
- MSA6705 Strategic Planning, Implementation and Evaluation (Capstone Course)

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)
  - MSA6601 Organizational Leadership and Team Development
  - MSA6602 Facility Development, Administration and Programming
  - MSA6603 Sports Marketing and Promotions
  - MSA6604 Sports in a Social Context
  - MSA6605 Legal and Professional Ethics in Sports
  - MSA6606 Group Dynamics
  - MSA6607 Human Resource Administration in Sports Organizations
  - MSA6608 Sports Risk Assessment
  - MSA6609 Communications and Media Relations
  - MSA6610 Strategies in Fundraising and Development

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.

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.
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.

MSA6705
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 commonsense 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.

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 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; MSSA6605 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
- MSSA6605 The Law and Student Affairs

Elective

Students must select three of 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

Admissions and Financial Aid Administration

Students must complete the following course:

- MSSA6604 Governance, Planning and Finance in Higher Education

Intercollegiate Sports Administration

Students must complete the following:

- MSSA6602 College Student Development
- MSSA6620 Marketing and Promotion for College Sports
- MSSA6622 Financial Administration in College Sports

Elective

- MSSA6604 Governance, Planning and Finance in Higher Education
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 3 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 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, curricular programming, residence life,
substance abuse, judicial issues and related public relations.

M SSA6614
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.

M SSA6616
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.

M SSA6617
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 facility, 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.

M SSA6618
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.

M SSA6619
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.

M SSA6620
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.

M SSA6622
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.

M SSA6623
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.

M SSA6626
3 Credits
M entoring 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.

Taxation (M.S.)
See Business, Taxation, pages 77–78.

Teaching (M.A.T.)
See Education, Teaching, pages 137–140.

Teaching English as a Second/Foreign Language (TESL/TEFL) (M.A.)
See Education, Teaching, pages 140–141.
International 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) 445-8086 or 1 (800) 338-8803.

Vancouver Campus

Vancouver, British Columbia

Wilfred J. Zerbe, Campus Executive

In fall 2007, Fairleigh Dickinson University opened an international 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 international 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 1-877-338-8002 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. Petrocelli College of Continuing Studies School of Administrative Science, is a 30-credit program at Vancouver.

It utilizes in-person 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 are delivered in person.

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 an accredited four-year bachelor's degree program or equivalent.
2. Maintained a cumulative grade point ratio of 2.75 ("B-") in their undergraduate studies.
International Studies

3. Demonstrated proficiency in communication of the English language (for international students whose first language is not English or who did not complete their degrees in the United States or Canada).

Application Deadlines
Fall Term: April 1. Admission results released up to June 15.
Spring Term: August 1. Admission results released up to October 15.
Summer Term: December 1. Admission results released up to February 15.

Required Documents
2. Copies of the documents must be submitted together with the online application: attested or official transcripts, academic records, diplomas, national examination results, certificates or degrees received from all post-secondary institutions, universities and/or professional schools. If the documents are not in English, certified translation is required.
3. Two recommendation letters. It is advised that at least one letter is an academic reference.
4. Answers to three essay questions in the application form outlining personal interests and career goals.
5. Proof of English proficiency if the student’s first language is not English or if the students did not complete their degrees in the United States or Canada.
6. Copy of passport information page.
7. Résumé (recommended).

Admission Procedures
Admission into the Master of Administrative Science program is highly competitive and is based on the deadline model. All applicants who applied for the term are evaluated and ranked. Only selected students receive admission into the program. Each intake is unique and depends on the number of seats available in the term, as well as the number and quality of applicants.

For more information, visit the Vancouver Campus graduate admission at http://view2.fdu.edu/vancouver-campus/admissions/graduate-admissions/how-to-apply/.

### Requirements for the Master of Administrative Science Degree
**Vancouver Campus**

<table>
<thead>
<tr>
<th>Non-Academic Credits</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Pre-Master’s Course</td>
<td></td>
</tr>
<tr>
<td>(for English Placement Test Scores 11.5–14)</td>
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</tr>
<tr>
<td>EPS5099</td>
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<tr>
<td>Academic Writing Skills—Masters</td>
<td>4.5</td>
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<tr>
<td>EPS5199</td>
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<tr>
<td>Workshop for Academic Writing Skills—Masters</td>
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</tr>
</tbody>
</table>

Research Strategies Courses (for English Placement Test Scores 14.5 and over)

| EPS5299 | Academic Research Foundations | 3 |

### 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 | 5 |

### Specialization Courses (12 credits)
Qualify for either Administrative or Analytical Decision-making Competencies

| MADS6648 | | 12 |

Optional Practicum Internship (1 credit)

| MADS6701 | | 1 |

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 | 3 |
| MADS6638 | Computer Security Administration | 3 |
| MADS6639 | The Forensic Expert | 3 |
| MADS6654 | Forensics Administration | 3 |
| MADS6697 | Current Issues in Cyber Forensics | 3 |
| MADS6700 | Global Technology Project Management | 3 |
| MADS6701 | Introduction to Computer Network Security | 3 |
| MADS6702 | Special Topics: Investigation of Computer System/Network Emergencies | 3 |
| MADS6735 | Introduction to Countermeasures for Malware | 3 |
| MADS6773 | Current Issues in Forensic Sciences | 3 |

#### Emergency Management Administration
Choose any four courses

| MADS6617 | Emergency Management and Safety Administration | 3 |
| MADS6633 | GIS and Emergency Administration | 3 |
| MADS6634 | Community Threat Assessment and Risk Analysis | 3 |
| MADS6636 | Global Preparedness for Catastrophic Emergencies | 3 |
| MADS6647 | Disaster Recovery and Organizational Continuity | 3 |
| MADS6648 | Organizational Planning and Risk Communications | 3 |
| MADS6715 | Special Topics: Global Terrorism and Emergency Management Preparation | 3 |
Global Health and Human Services Administration
Choose any four courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MADS6628</td>
<td>Building Strategic Partnerships</td>
<td>3</td>
</tr>
<tr>
<td>MADS6642</td>
<td>Global Health and Human Services Systems</td>
<td>3</td>
</tr>
<tr>
<td>MADS6643</td>
<td>Community Needs Assessment and Qualitative Analysis for Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>MADS6644</td>
<td>Law, Ethics and Policy for Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>MADS6645</td>
<td>Marketing Social Change</td>
<td>3</td>
</tr>
<tr>
<td>MADS6646</td>
<td>Finance and Accounting for Health and Human Services</td>
<td>3</td>
</tr>
<tr>
<td>MADS6647</td>
<td>Organizational Planning and Risk Communications</td>
<td>3</td>
</tr>
<tr>
<td>MADS6718</td>
<td>Special Topics: Lifestyle Modification for Leaders</td>
<td>3</td>
</tr>
<tr>
<td>MADS6753</td>
<td>Special Topics: Elder Care: Legal Issues</td>
<td>3</td>
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</table>

Global Leadership and Administration
Choose any four courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MADS6618</td>
<td>Leadership Plus</td>
<td>3</td>
</tr>
<tr>
<td>MADS6628</td>
<td>Building Strategic Partnerships</td>
<td>3</td>
</tr>
<tr>
<td>MADS6640</td>
<td>Leading in Times of Crisis</td>
<td>3</td>
</tr>
<tr>
<td>MADS6653</td>
<td>Global Citizenship Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MADS6658</td>
<td>Leadership: Global Advanced Scholarship and Practice</td>
<td>3</td>
</tr>
<tr>
<td>MADS6676</td>
<td>Perspectives on Leadership from Films</td>
<td>3</td>
</tr>
<tr>
<td>MADS6706</td>
<td>Collaborative Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MADS6709</td>
<td>Special Topics: Creativity, Change and 21st-century Leaders</td>
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</tr>
<tr>
<td>MADS6747</td>
<td>Relational Leadership</td>
<td>3</td>
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</table>

Global Technology Administration
Students are required to take the following two courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MADS6605</td>
<td>Principles of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MADS6608</td>
<td>Organizational Communication and Conflict Resolution</td>
<td>3</td>
</tr>
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</table>

Choose any two courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MADS6618</td>
<td>Leadership Plus</td>
<td>3</td>
</tr>
<tr>
<td>MADS6632</td>
<td>Technology Applications for Not-for-Profit Management</td>
<td>3</td>
</tr>
<tr>
<td>MADS6638</td>
<td>Computer Security Administration</td>
<td>3</td>
</tr>
<tr>
<td>MADS6677</td>
<td>Planning for Change in Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>MADS6696</td>
<td>Building Effective Teams</td>
<td>3</td>
</tr>
<tr>
<td>MADS6700</td>
<td>Global Technology Project Management</td>
<td>3</td>
</tr>
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</table>

Human Resources Administration
Choose any four courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MADS6607</td>
<td>Collective Bargaining and Contract Administration</td>
<td>3</td>
</tr>
<tr>
<td>MADS6608</td>
<td>Organizational Communication and Conflict Resolution</td>
<td>3</td>
</tr>
<tr>
<td>MADS6609</td>
<td>Productivity and Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>MADS6618</td>
<td>Leadership Plus</td>
<td>3</td>
</tr>
<tr>
<td>MADS6620</td>
<td>Human Resources Systems: Approaches and Techniques for the Modern Workplace</td>
<td>3</td>
</tr>
<tr>
<td>MADS6661</td>
<td>Managing Organizational Change</td>
<td>3</td>
</tr>
<tr>
<td>MADS6662</td>
<td>Customer Service for Public and Not-for-Profit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MADS6706</td>
<td>Collaborative Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MADS6709</td>
<td>Special Topics: Creativity, Change and 21st-century Leaders</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Descriptions

*Mandatory course.
**Students are to select only one leadership course.

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. Graduated from an accredited four-year bachelor’s degree program or equivalent.
2. Maintained a cumulative grade point ratio of 2.75 (“B-”) or equivalent in their undergraduate studies.
3. Demonstrated proficiency, both written and verbal, of the English language (for international students whose first language is not English or who did not complete their degrees in the United States or Canada).
4. 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).
Application Deadlines
Fall Term: August 1.
Spring Term: December 1.
Summer Term: April 1.

Required Documents
2. Copies of the documents must be submitted together with the online application: attested or official transcripts, academic records, diplomas, national examination results, certificates or degrees received from all post-secondary institutions, universities and/or professional schools. If the documents are not in English, certified translation is required.
3. Two recommendation letters. It is advised that at least one letter is from an academic reference.
4. Answers to three essay questions in the application form outlining personal interests and career goals.
5. Proof of English proficiency if the students’ first language is not English or if the students did not complete their degrees in the United States or Canada. For more details refer to English Proficiency page (https://view2.fdu.edu/vancouver-campus/admissions/english-proficiency/).
6. Copy of passport information page.
7. Résumé or portfolio.
8. Interview with a graduate program adviser may be required.

Admission Procedures
Admission into the Master of Science in hospitality management studies program is highly competitive and is based on the “rolling” admission model.

All applicants are evaluated by both the admissions team and the International School of Hospitality and Tourism Management.

An interview with the program adviser may be required before the decision on admission can be made. The admissions team will notify applicants and schedule the interview if needed.

For Additional Information
For additional information and the course outlines, admission requirements and requirements for the degree go to pages 172–175.

Course Descriptions
Faculty and Administration

Faculty

Sameh Abdelazim
Assistant Professor of Electrical Engineering
Technology and Electrical Engineering
B.E., M.E., Ph.D., The City University of New York

Catherine Acosta
Senior Lecturer of Psychology
B.A., Binghamton University, State University of New York; M.A., Teachers College, Columbia University

Anthony J. Adrignolo, Jr., PE.
Professor of Global Transportation Studies
B.S.I.E., Fairleigh Dickinson University; M.S.O.R., New York University

Joseph Agugliaro
Associate Professor of Biology
B.S., The College of New Jersey; Ph.D., University of Arkansas

Vahid Alizadeh
Assistant Professor of Civil and Construction Engineering
B.S., Azad University, Iran; M.S., Shiraz University, Iran; Ph.D., University of Wisconsin-Milwaukee

James G. Almeida
Associate Professor of Entrepreneurship; Interim Dean and Associate Dean for Graduate Programs, Silberman College of Business
B.S., M.M.S., University of Bombay, India; M.B.A., Northeast Louisiana University; Ph.D., University of South Carolina

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Christopher S. Groff, M.S.
Assistant Vice President of Corporate and Foundation Relations
Karin Hamilton, M.B.A.
Executive Director of Alumni Relations
Karen Ann Lewis, Ph.D.
Executive Director of One University Many Dreams
Kenneth Lam, Ed.M.
Director of Annual Giving
Delia Grace Perez, M.A.
Director of Planned Giving
Laura R. Reynolds, M.B.A.
Director of Special Events
Anne Sherber, B.A.
Director of Advancement Communications

Office of Florham Campus Executive
Brian Mauro, Ph.D.
Campus Executive
Mary Keyser
Special Assistant to the Campus Executive
Marc DeBoer, B.S.
Deputy to the Florham Campus Executive

Office of Academic and Disability Support Services
Darshan Shah, M.B.A.
Director
Educational Opportunity Fund
Marjorie A. Hall, M.A.
Director

Office of International Student Services
James Deleppo, M.S.Ed.
University Director

Athletics Division III
Jennifer Noon, M.A.
Director
Florham Institute for Lifelong Learning
Bruce Peabody, Ph.D.
Director
Public Safety
Joseph Vitiello, B.A.
Campus Director

Office of the Dean of Students
Robin M. Williamson, Ph.D.
Dean of Students
Pamela Messina, M.A.
Associate Dean of Students for Administration/Case Manager
Sandra Gilot-West, M.Ed.
Associate Dean of Students for Residential Education

Office of Student Life
Sarah Azavedo, M.A.
Director
Counseling Services
Stephanie Koempel, Ph.D.
Director
Student Health Services
Susan Boisnier, R.N., M.S.N., A.P.N.
Director

Office of Metropolitan Campus Executive
Steven E. Nelson, J.D., M.B.A.
Campus Executive
S. Craig Mourtou, M.P.S.
Deputy Campus Executive
Angela DePolo, M.A.
Senior Assistant to the Campus Executive
Beth Reuse, M.Ed.
Assistant to the Campus Executive for External Room Reservations and Special Projects

Academic Support Services
Academic Advisement Center
Andrea Mosca, M.Ed.
Director

Academic Resource Center
Margaret Roidi, Ph.D.
Director

Educational Opportunity Fund
Marjorie A. Hall, M.A.
University Director

Office of International Student Services
James Deleppo, M.S.Ed.
University Director

Athletics Division I
Bradford D. Hurllbut, B.A.
Director

Global Scholars Program
Samuel J. Raphalides, Ph.D.
Director

Center for Psychological Services
Stephanie Ulrich, Ph.D.
Director

Office of Public Safety
David A. Miles, M.S.
Director

Campus Ministry
Rev. Jim Om, M.A.
Director and Protestant Chaplain

Student Health Services
April Quatranro, F.N.P., M.S.N.
Director of Student Health Services/Nurse Practitioner

Student Counseling and Psychological Services
Alice Mills, Ph.D.
Co-director of Counseling Service

David Mednick, Psy.D.
Co-director of Counseling Service

Regional Center for Learning Disabilities
Mary L. Farrell, Ph.D.
University Director
Barbara A. Bymes, M.A.
Metropolitan Campus Director
Mary L. Hebert, Ph.D.
Florham Campus Director
Grace Hottinger
Coordinator of Admissions

Office of the Dean of Students
Vidal Lopez-Marrero, M.P.S.
Dean of Students
Ruben C. Flores, M.Ed.
Associate Dean of Students for Residence Life
Jessica D. O’Brien, M.Ed.
Associate Dean of Students for Student Union and Campus Engagement
Administration

Colleges, Schools

Maxwell Becton College of Arts and Sciences

Florham Campus, Madison, New Jersey

Geoffrey S. Weinman, Ph.D.
Dean

Jennifer Lehr, Ph.D.
Associate Dean

Deborah Pilipie Dobson, B.A.
Director, Advising Center

School of the Arts

Todd Rosen, M.F.A.
Director

Howard Libov, M.A.
Chair

Biological and Allied Health Sciences Department

James Salierno, Ph.D.
Chair

Chemistry and Biochemistry Department

Alexey Tesija, Ph.D.
Chair

Communication Studies Department

Gary Radford, Ph.D.
Chair

Literature, Language, Writing and Philosophy Department

Matthieu Boyd, Ph.D.
Chair

Mathematics, Computer Science and Physics Department

Laila Khreisat, Ph.D.
Chair

Psychology and Counseling Department

Anthony Tasso, Ph.D.
Chair

Social Sciences and History Department

Gary Darden, Ph.D.
Chair

Silberman College of Business

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

James G. Almeida, Ph.D.
Interim Dean and Associate Dean for Graduate Programs

J. Daniel Wischnevsky, Ph.D.
Assistant Dean for Undergraduate Programs

Peter Caliguari, M.B.A.
Director of Executive M.B.A. Programs

Ron West, J.D., C.P.A., C.F.P.
Director, Tax Program

Accounting, Taxation and Law Department

Ron West, J.D., C.P.A., C.F.P.
Chair

Economics, Finance and International Business Department

Karen C. Denning, Ph.D.
Chair

Management and Entrepreneurship Department

Gwen Jones, Ph.D.
Chair

Marketing, Information Systems and Decision Sciences Department

Li Qin, Ph.D.
Chair

Rothman Institute of Innovation and Entrepreneurship

Dale G. Caldwell, Ed.D.
Executive Director

Anthony J. Petrocelli College of Continuing Studies

Metropolitan Campus, Teaneck, New Jersey; Florham Campus, Madison, New Jersey; and Vancouver Campus, British Columbia, Canada

Lisa R. Braverman, Ph.D.
Dean

Prema Dar, M.A.
Executive Director of Marketing

Alexander Sperrazza, M.B.A.
Executive Director of Enrollment Management

Francisco Parra, Ph.D.
Assistant Director and Advising Counselor for Undergraduate Programs

Frank Pantaleo, M.A.S.
Off-campus Program Coordinator

Miranda Haines, M.A.S.
Director of Student Support Services

School of Administrative Science

Katherine Zatz, Ed.D.
Assistant Dean

Lorraine S. Nienstedt, M.A.S., C.P.M.
Associate Director

Donna Ganley, M.A.S.
Senior Coordinator for Off-campus Credit Programs

James H. Behnke, M.Ed.
Director of Web, Instructional Technology and Online Learning

Jasmine Sahni, M.A., M.B.A.
Coordinator of Online Programs

International School of Hospitality and Tourism Management

John Niser, Ph.D.
Director

Division of Continuing Education

Deborah Fredericks, Ph.D.
Associate Dean for Continuing Education

Jacqueline Lue Raia, B.B.A.
Director of Corporate Outreach and Training

Jordan Mitchell, M.A.
Senior Program Director

Karen Nelson, M.B.A.
Senior Program Director

Cheryl Connolly, B.A.
Paralegal Program Coordinator

Christopher DeGisi
Program Director
Korean Studies Program (MiraeRo)
Francisco Parra, Ph.D.
Adviser
Office of Online Programs
Joanna Steiner, M.S.
Director of Online Programs
Puerta al Futuro Program
Fernando Alonso, J.D.
Director
Latino Promise Program
Fernando Alonso, J.D.
Director
Sports Administration
Jong-Chae Kim, Ph.D.
Co-director
Robyn Lubisco, Ph.D.
Co-director

University College: Arts • Sciences • Professional Studies
Metropolitan Campus, Teaneck, New Jersey; Florham Campus, Madison, New Jersey; and Vancouver Campus, British Columbia, Canada
Vicki L. Cohen, Ed.D.
Interim Dean
Janet Boyd, Ph.D.
Interim Associate Dean
Mutiaa Mohamad, Ed.D.
Director, Programs in Language, Culture and Professional Advancement (PLCPA)
Center for Dyslexia Studies
Mary Farrell, Ph.D.
Director
School of Art and Media Studies
Janet Boyd, Ph.D.
Interim Director
Lee Gildart and Oswald Haase School of Computer Sciences and Engineering
Alfredo C. Tan, Ph.D.
Director
Howard Silver, Ph.D.
Deputy Director, Engineering, Engineering Technology and Information Technology
School of Criminal Justice, Political Science and International Studies
Samuel J. Raphalides, Ph.D.
Director
Katie Ingenito, B.A.
Assistant to the Director
Peter Sammartino School of Education
Miriam Singer, Ed.D.
Interim Director
Louis Ray, Ph.D.
Deputy Director
Joshua Bornstein, Ph.D.
Director, Educational Leadership Program
Sora Suh, Ph.D.
Coordinator of ESL/Second Language Acquisition Program
Carol Karpinski, Ed.D.
Director, Master of Arts in Teaching Program
Kathryn Spence, Ed.D.
Director, QUEST/B.A.-M.A.T.
Teresa Oettinger Montani, Ed.D.
Director, Learning Disabilities Program
Vincent Martone, M.A.
Director, Field Placement and Certification

School of the Humanities
Janet Boyd, Ph.D.
Director
School of Natural Sciences
James Dougherty, Ph.D.
Co-director
Marion McClary, Ph.D.
Co-director
Henry P. Becton School of Nursing and Allied Health
Minerva Guttman, Ed.D.
Director
MaryCarol Rossignol, Ph.D.
Associate Director of Florham Programs
Marilyn Rubin, Ed.M.
Associate Director of Allied Health
Sylvia Colon Cabassa, D.N.P.
Associate Director of Undergraduate Nursing Program
Boas Yu, Ed.D.
Associate Director of Graduate Nursing Program
Department of Physical Education
Bradford D. Hurlbut, B.A.
Athletic Director
Catherine M. Liggett
Coordinator
School of Psychology
Robert McGrath, Ph.D.
Director of School of Psychology
Stephen Armeli, Ph.D.
Director, M.A. Program in General/Theoretical Psychology; Director, Undergraduate Studies
Robert Prentky, Ph.D.
Director, M.A. Program in Forensic Psychology
Cynthia Radnitz, Ph.D.
Director, Ph.D. Program in Clinical Psychology
Stefanie Ulrich, Ph.D.
Director, Center for Psychological Services
Jamie Zibulsky, Ph.D.
Director, Psy.D. and M.A. Programs in School Psychology
School of Pharmacy and Health Sciences

Florham Campus, Madison, New Jersey (230 Park Avenue, Florham Park, New Jersey)

Michael J. Avaltroni, Ph.D.  
Dean

Anastasia Rivkin, Pharm.D.  
Assistant Dean for Faculty

Barbara Rossi, M.A.  
Assistant Dean for Experiential Education

Chadwin Sandifer, Ed.D.  
Assistant Dean for Student Affairs and Programmatic Effectiveness

Yong Guo, Ph.D.  
Director of Research and Graduate Studies and Director of Pharmaceutical Sciences

Julie Kalabalik, Pharm.D.  
Director of Pharmacy Practice

Patricia Lemermann, M.S.  
Director of Student Affairs and Community Engagement

Leslie McRae, M.S.  
Director of Technical Operations

Jennifer Olsakowski, Pharm.D.  
Director of Student Pharmacist Practice

Tracy Templin, M.S.  
Director of Admissions and Marketing

Ligia Westrich, Ph.D.  
Director of Assessment

School of Public and Global Affairs

Florham Campus, Madison, New Jersey; and Metropolitan Campus, Teaneck, New Jersey

Peter J. Woolley, Ph.D.  
Founding Director

Krista Jenkins, Ph.D.  
Executive Director of Fairleigh Dickinson University Poll

Paulette M. Laubsch, D.P.A.  
M.P.A. Program Coordinator

Vancouver Campus

Wilfred J. Zerbe, Ph.D.  
Campus Executive

David O’Reilly, M.B.A.  
Deputy Vancouver Campus Executive

Maria Elizabeth Torres Concepcion, M.D.  
Office Manager of Vancouver Campus; Senior Assistant to the Campus Executive

Academic Support and Facilities

Sonali A. Hoheisel, B.A.  
Assistant Director and Facilities Manager

Ayten Kun, C.C.D.P  
Academic Adviser

Nyauri Tawengwa, B.A.  
Academic Support Assistant

Ruoqi (Sydney) Shi, M.Ed.  
Academic Adviser

Admissions

Natalia Kharitonova, Ph.D.  
Director

Juliana Fiorentino, B.A.  
Associate Director

Natsumi Otsubo, B.A.  
Admissions Assistant

Joao Passos Da Camara, M.A.S.  
Admissions Assistant

B.A. in Individualized Studies Program

Ajay K. Garg, Ph.D.  
Associate Director

Bahareh Assadi, Ph.D.  
Assistant Director

B.S. in Information Technology Program

Vasudevan Janarthanan, Ph.D.  
Program Coordinator

Career Services

Jeffrey Lee, B.A.  
Manager

June Cho, M.A.S.  
Assistant

Enrollment Services

Arlette Hernandez, M.A.S.  
Director

Karla Enriquez Ramos, B.A.  
Administrative Assistant

Uyen Le, B.S.  
Clerk

Soyun Kwon, B.A.  
Administrative Assistant

Veronica Liu, Dip.  
Administrative Assistant

Finance

Jolin Wang, B.A.  
Accounting Office Clerk

Global Scholars Program

Gudrun Dreher, Ph.D.  
Director

Human Resources

Eoin Kennedy, M.Sc.  
Human Resources Adviser

International School of Hospitality and Tourism Management

Willy A. Aroca, M.A.  
Associate Director

Learning Resources and Support Program

David O’Reilly, M.B.A.  
Coordinator, Pre-University and Pre-Master’s Programs

Marketing and Recruitment

Amy Yan, M.A.S.  
Director

Gi Eun (Jeanette) Lee, M.B.A.  
Associate Director

Sahyra Lora Nova, B.A.  
Administrative Assistant and Receptionist

Master of Administrative Science Program

Ajay K. Garg, Ph.D.  
Associate Director

Bahareh Assadi, Ph.D.  
Assistant Director

Student Services

Jobin Mojtabavi, M.A.S., RISIA  
Director

Fernanda Barros, B.A., RCIC  
Assistant Director

Technology and Information Services

Jonn Martell, B.Sc.  
Director

Estref Resuli, B.Eng.  
Senior IT Specialist

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 Parkay to 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 New York Area**
Take I-78 West (I-287 South) to Route 124 West (Morristown). Go to the first light and turn left onto Route 510. At the fourth traffic light, make a right turn and follow 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.
<table>
<thead>
<tr>
<th>Campus Buildings</th>
<th>Where to Find</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Hennessy Hall (Mansion)</td>
<td>Academic Support Center: Monninger Center, Bldg. 14</td>
</tr>
<tr>
<td>2  Reuter’s Rock</td>
<td>admissions: Rothman Building, Bldg. 8</td>
</tr>
<tr>
<td>3  Science Building</td>
<td>Adult Education (Continuing Education): 230 Park Avenue, Florham Park</td>
</tr>
<tr>
<td>4  East Cottage</td>
<td>Advising: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>5  West Cottage</td>
<td>Allied Health: Science Building, Bldg. 3</td>
</tr>
<tr>
<td>6  Martin F. Stadler, Patrick J. Zener, Hoffmann-La Roche Inc. Academic Building</td>
<td>Arts and Sciences, Maxwell Becton College of Arts, School of the: Dreyfus Building &amp; Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>7  Roberta Chiarello Ferguson and Thomas G. Ferguson Recreation Center</td>
<td>Biology: Science Building, Bldg. 3</td>
</tr>
<tr>
<td>8  Rothman Building-Admissions</td>
<td>Art Studio: Florence Twombly Hall, Bldg. 18.1</td>
</tr>
<tr>
<td>(Rothman Institute of Innovation and Entrepreneurship offices located in Hennessy Hall (Mansion), Bldg. 1)</td>
<td>Athletics: Ferguson Recreation Center, Bldg. 7</td>
</tr>
<tr>
<td>9  Dreyfus Building</td>
<td>ATM Machine: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>10 Barn Campus Safety, Campus</td>
<td>Audiovisual (Instructional Media) Monninger Center, Bldg. 14</td>
</tr>
<tr>
<td>Facilities/Maintenance, Web Lab</td>
<td>Black Box Theater: Bldg. 26</td>
</tr>
<tr>
<td>11 Maintenance Shops</td>
<td>Bookstore: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>12 Maintenance Shops</td>
<td>Botttle Hill Room and Pub: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>13 Chaine House</td>
<td>Bursar: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>14 John and Joan Monninger Center for Learning and Research</td>
<td>Business, Siberman College of Cafeterias: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>15 Educational Opportunity Fund Office</td>
<td>Campus Life: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>16 Public Relations Office</td>
<td>Campus Ministry: Florence Twombly Hall, Bldg. 18.1</td>
</tr>
<tr>
<td>17 Frank Sarnolci Student Center</td>
<td>Career Development: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>18 Twombly Residence Halls</td>
<td>Chemistry/Geological Sciences: Science Building, Bldg. 3</td>
</tr>
<tr>
<td>19 Rutherford Hall (Residence Hall)</td>
<td>Communication: Sarnolci/Zerener Academic Building, Bldg. 6</td>
</tr>
<tr>
<td>20 Village Residence Halls</td>
<td>Computer Center, Peter Falley: Dreyfus Building, Bldg. 9</td>
</tr>
<tr>
<td>20.1 Florence Twombly Hall</td>
<td>Computer Science/Mathematics: Sarnolci/Zerener Academic Building, Bldg. 6</td>
</tr>
<tr>
<td>20.2 Hamilton Twombly Hall</td>
<td>Computing Services: Dreyfus Building, Bldg. 9</td>
</tr>
<tr>
<td>20.3 Elsworth Hall</td>
<td>Conferences/Summer Programs: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>20.4 Barclay Hall</td>
<td>Conferie de la Chaîne des Rôtisseurs: National Headquarters, Chaîne House, Bldg. 13</td>
</tr>
<tr>
<td>20.5 Penn Hall</td>
<td>Continuing Education: 230 Park Avenue, Florham Park</td>
</tr>
<tr>
<td>20.6 Rice Hall</td>
<td>Copy Center: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>20.7 Willett Hall</td>
<td>Core Curriculum Office: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>20.8 Vanderbilt Hall</td>
<td>Counseling: Wellness Center, Bldg. 24</td>
</tr>
<tr>
<td>20.9 Danforth Hall</td>
<td>Criminology: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>21 Park Avenue Residence Hall</td>
<td>Dean of Students: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>22A, B Tennis Courts</td>
<td>Dean, Maxwell Becton: College of Arts and Sciences: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>23 McNamus Field</td>
<td>College of Business: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>24 Softball</td>
<td>College of Business/Art: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>25 Wellness Center</td>
<td>Education: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>26 Black Box Theater</td>
<td>Educational Opportunity Fund (EOF): Bldg. 15</td>
</tr>
<tr>
<td>27 Athletics Field</td>
<td>English: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>Baseball</td>
<td>Enrollment Services: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>Men’s Soccer</td>
<td>Entrepreneurship, Rothman Institute of Innovation and Entrepreneurship:</td>
</tr>
<tr>
<td></td>
<td>Facilities Department: Barn, Bldg. 10</td>
</tr>
<tr>
<td>28 Robert T. Sheets Athletics Field Football</td>
<td>Financial Aid: Hennessy Hall (Mansion) Courtyard, Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Fine Arts: Twombly Residence Halls, Bldg. 18</td>
</tr>
<tr>
<td>29 Athletics Field</td>
<td>Florham Institute for Lifelong Learning: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>Field Hockey</td>
<td>Florham Room: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>Men’s and Women’s Lacrosse</td>
<td>Food Service Office: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td>30 Secret Garden</td>
<td>Freshman Intensive: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>31 Sculpture Gardens</td>
<td>Global Learning: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td>32 Gate to College of Saint Elizabeth</td>
<td>Hartman Lounge: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Health Services: Wellness Center, Bldg. 24</td>
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<tr>
<td></td>
<td>History/Social Sciences: Hennessy Hall (Mansion), Bldg. 1</td>
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<tr>
<td></td>
<td>Honors Program: Hennessy Hall (Mansion), Bldg. 1</td>
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<tr>
<td></td>
<td>Hospitality and Tourism Management, International School of:</td>
</tr>
<tr>
<td></td>
<td>Housing Office: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td></td>
<td>Human Resources, University: Hennessy Hall (Mansion), Bldg. 13</td>
</tr>
<tr>
<td></td>
<td>Interactive Television (ITV): Hennessy Hall (Mansion), Dreyfus Building,</td>
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<tr>
<td></td>
<td>International Education, Office of: Hennessy Hall (Mansion), Bldg. 1</td>
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<tr>
<td></td>
<td>International Student Services: Sarnolci Student Center, Bldg. 17</td>
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<tr>
<td></td>
<td>Journal of Psychology and Behavioral Science: Sarnolci/Zerener Academic Building, Bldg. 6</td>
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<tr>
<td></td>
<td>Leaves and Grains: Sarnolci/Zerener Academic Building, Bldg. 6</td>
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<tr>
<td></td>
<td>Learning Disabilities, Regional Center: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Library: Monninger Center, Bldg. 14</td>
</tr>
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<td></td>
<td>Literary Review, The Literature: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Mathematics/Computer Science: Sarnolci/Zerener Academic Building, Bldg. 6</td>
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<tr>
<td></td>
<td>Modern Languages: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Nurse: Wellness Center, Bldg. 24</td>
</tr>
<tr>
<td></td>
<td>Paralegal Studies: 230 Park Avenue, Florham Park</td>
</tr>
<tr>
<td></td>
<td>Parking Permits: Barn, Bldg. 10</td>
</tr>
<tr>
<td></td>
<td>Petrecolli College of Continuing Studies, Anthony J.: 230 Park Avenue, Florham Park</td>
</tr>
<tr>
<td></td>
<td>Pharmacy and Health Sciences, School of: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Philosophy: Hennessy Hall (Mansion), Bldg. 1</td>
</tr>
<tr>
<td></td>
<td>Physics: Sarnolci/Zerener Academic Building, Bldg. 6</td>
</tr>
<tr>
<td></td>
<td>Pillow (Student Newspaper) Florence Twombly Hall, Bldg. 18.1</td>
</tr>
<tr>
<td></td>
<td>President, Office of Psychology: Sarnolci/Zerener Academic Building, Bldg. 6</td>
</tr>
<tr>
<td></td>
<td>Pub: Sarnolci Student Center, Bldg. 17</td>
</tr>
<tr>
<td></td>
<td>Public and Global Affairs, School of: 230 Park Avenue, Florham Park</td>
</tr>
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<td>Sullivan Lounge: Hennessy Hall (Mansion), Bldg. 1</td>
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<td>Theater: Dreyfus Building, Bldg. 9</td>
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Academic Resource Center Dickinson Hall, Bldg. 52
Administrative Science Dickinson Hall, Bldg. 52
Admissions
Graduate, International Kron Administration Building, Bldg. 8
Undergraduate, Full-time, Part-time, Adult Dickinson Hall, Bldg. 52
Adult Education (Continuing Education) Dickinson Hall, Bldg. 52
Advisement, Business Graduate Students Dickinson Hall, Bldg. 52
Advisement, Office of Professional Programs/Graduate Studies Dickinson Hall, Bldg. 52
Allied Health, Nursing and Alumni Relations Dickinson Hall, Bldg. 52

Metropolitan Campus
Teaneck, New Jersey

Campus Buildings

1. Bancroft Hall (1094 River Road, Teaneck)
2. Williams Hall (1090 University Circle, Teaneck)
3. Fitness Center (1080 University Circle, Teaneck)
4. Northpointe Residence Hall
5. Robison Hall (1040 University Circle, Teaneck)
6. Robison Hall Annex (1081 Scenic Trail, Teaneck)
7. Muscarielle Center for Building Construction Studies (1004 University Circle, Teaneck)
8. Kron Administration Building (1000 River Road, Teaneck)
9. University Hall (1004 Library Circle, Teaneck)
10. University Hall Annex (990 Library Circle, Teaneck)
11. Alumini Hall
12. Alumni Hall (1090 Library Circle, Teaneck)
13. Becton Hall (860 River Road, Teaneck)
14. Becton Theater (860 River Road, Teaneck)
15. River House (888 River Road, Teaneck, continuation of Lone Pine Lane)
16. Banta Coe House (884 Lone Pine Lane)
17. University Court Residence Hall #9 (829 Lone Pine Lane, Teaneck)
18. University Court Residence Hall #10 and MFU-FM (520 River Road, Teaneck)
19–23. University Court Residence Halls #4–8 (896, 906, 916 River Road and 901, 921 Lone Pine Lane, Teaneck)
24–26. University Court Residence Halls #1–3 (883 Lone Pine Lane and 882, 886 River Road, Teaneck)
27. Public Safety Office (870 River Road, Teaneck)
28. Interfaith Chapel (842 River Road, Teaneck)
29. 841 River Road, Teaneck
30. 840 River Road, Teaneck
31. 838 River Road, Teaneck
32. Housekeeping
33. 835 SUB Lane, Teaneck (Programs in Language, Culture and Professional Advancement)
34. 839 SUB Lane, Teaneck (SUB Annex)
35. 867 SUB Lane, Teaneck (Dean of Students)
36. Student Union Building (SUB)
37–44. Linden Residence Halls #1–8
45. Knight Spot (24/7 Study Lounge)
46. 860 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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Arts • Sciences • Professional Studies, University College: Academic Affairs, Senior Vice President for, and University Provost Dickinson Hall, Bldg. 52
Athletics Kron Administration Building, Bldg. 8
Audiovisual (Instructional Media) Giovatto Library & Dickinson Hall, Bldgs. 11 & 52
Biological Sciences Dickinson Hall, Bldg. 52
Bookstore Alumini Hall, Bldg. 10
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